

Playing in Class

*Placing play with credibility
in the design classroom*

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Thank You

Abstract

This research through design project explores methods for encouraging playful moments in university design classes. It is informed by scholars such as Dr. Stewart Brown, Dr. Scott Eberle, Dr. Brian Sutton-Smith, and Pat Kane, all of whom re-contextualize play as an instinctual, necessary, and beneficial experience. This project proposes a range of playful moments, or Interludes, based upon Play Patterns established by the National Institute for Play (1992). The Interludes were developed, tested and refined through 18 months of focused ethnographic studies and student surveys. The Interludes were categorized into the framework of the *PlayBook* which supports the facilitation of play; making these moments accessible for design instructors and credible in a university context.

Research showed that the Interludes are beneficial to designers and can be easily adapted to a variety of classroom settings. During these activities, students reported feeling more energetic, less stressed, and less pressured. The ethnographic study observed students engaging in the design process in more personally relevant, collaborative, and creative ways, reaffirming elements of a playful experience as defined by NOKIA Research Center (2011). The Interludes are designed with minimal structure, so as to retain the voluntary, personally unique experiences that are essential to play. Using the Interludes in the *Play-Book* as a jumping off point, this project can act as an actionable step towards a more naturally playful pedagogy.

Key Words

Design Pedagogy, Creative Process, Classroom Dynamics, Design Resources, Design Instruction, Play in Design Classes, Play in University.

Foreword

Why Play? Why *not* play?

The work vs. play dichotomy is so ingrained in our culture that it is no surprise the pressures of adulthood – to be a productive member of society, a hardworking adult, a good student – often overshadow the potential for play (Brown, 2010; Kane, 2011). While some design instructors intuitively promote playful classroom experiences to support the design process; in many schools and classrooms, playful potential is often overlooked in favor of solitary, quiet work in front of a computer. It was this realization that led to the investigation of the power and potential of play in the design classroom. While this examination could be interpreted as instrumentalizing play to help students be productive, this would miss the essential nature of play and turn the playful moment into just another class exercise. This thesis acknowledges this inherent dilemma, and asserts that attempts to make play useful adulterates the beneficial nature of a playful class experience.

This project explored the importance of play in design classes by interjecting playful experiences, Interludes, into design classes and observing the effects through ethnographic observation, interviews, and several student surveys. The experience of creating, testing, and facilitating these energetically playful breaks informed the framework of the *“PlayBook,”* an accessible resource which provides design instructors with the opportunity to easily incorporate more playful moments into their existing lesson plans. In this way, the Interludes can act as a step to inspire moments of playful engagement and appreciation of play, while working within the paradigms of the North American notions of value and the current work-play dichotomy. **This project positions play with credibility in university design classes, and has potential to inspire a more playful design pedagogy.**

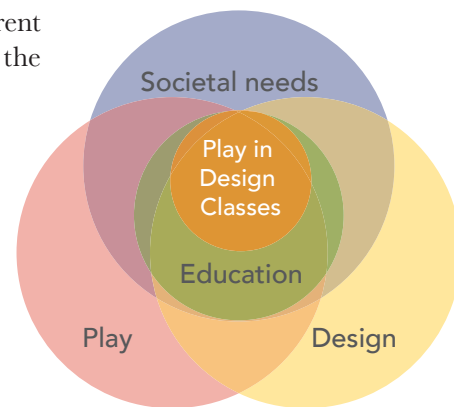


FIG 1 Project Spaces

This document summarizes the theories and understandings that form the foundation of this project. It then shares the story of the design process and the tensions and discoveries that emerged from an iterative cycle of making, testing and reflecting. The design outcomes and research results are discussed, concluding with a discussion of the implications of this Master of Design thesis project.

1 Context

Where we are
Where we should be
What is wrong
What design can do
What design education can do

Where We Are

Even a quick scan of the daily news indicates a myriad of increasingly serious issues that impact our personal and collective lives. Most major westernized countries are issuing reports about probable dangers associated with environmental degradation, overpopulation, failing economic systems, social injustices, global tensions and most importantly a lack of consensus about how to address such issues. These problems are often too complex to solve by recycling more, or donating a dollar a day to save children or animals. The CreativeCity.ca report is a “forward-looking research report” that, like those produced by the U.S. and Europe, appears at a time of serious crisis and significant change. Its findings lead to the argument, “The crises we face... are symptoms of our collective failures and clear signs of the need to do things differently. Business as usual is not an option.” (NSCAN, 2009).

The serious implications of these issues are easily interpreted as proof that we need to buckle down, stop messing around, and get to work

The serious implications of these issues are easily interpreted as proof that we need to buckle down, stop messing around, and get to work; which is exactly why this project is necessary. If business as usual is not an option, re-examining assumptions about the value of play could be a starting place for addressing the changing values and needs of our current society. Encouraging the social and cognitive benefits that arise through play could increase resilience and result in a more resilient mindset for students as they learn about how to tackle these complex and daunting problems.

Where We Should Be

New methods of creatively tackling complicated problems of this order of magnitude result in new notions about what skills are important. North American society is experiencing a paradigm shift from a post-industrial, consumer based economy to the Creative Economy, which places increasing value on the cultural and creative industries (Howkins, 2001; Kane, 2004; T.&D. Kelley 2013; Nussbaum, 2013). The increased emphasis on the Creative Economy is most recently evident in the close relationship between companies listed in Fortunes' annual list of the "100 Top Companies of 2015" and Forbes' recently created "50 Most Innovative Companies." These accolades affirm how creative thinking can discover unmet needs and address wicked problems in a thorough and insightful way. This creative momentum, featured in prominent business magazines such as Forbes and Fortune and Business Week corroborate sentiments in the Canada Creative City's report such as, "Creativity must be embraced as a driving force in the provincial economy and placed at the centre of economic, community, and business development strategies." ("CreativeCity," 2013).



FIG 2 Creative Economy

Even though we openly acknowledge the necessity of innovative problem solving, the incoming generation and future workforce are not well prepared for creative thinking (Robinson, 2006; Werberger, 2015). Students are coming from an educational system that is rooted in expectations and pedagogies formed to train workers during the industrial revolution, and were not designed to encourage creativity. High school graduates bring institutionalized ideologies and ingrained notions of productivity, success, and hard work into the university design classroom. Design instructors are challenged to help them overcome these preconceptions and shift these ingrained modes of thinking in order to be effective designers and tackle the wicked problems that society faces.

What Design Can Do

In *Designerly Ways of Knowing*, Nigel Cross quotes Herbert Simon saying:

“The natural sciences are concerned with how things are...design on the other hand is concerned with how things ought to be.” (Cross, 2001, p. 51). This situates design as a discipline, with its interdisciplinary reaches and future oriented possibilities, as particularly suited to re-frame problems, ask new questions, and create new opportunities that better address the pressing problems of our time. Unfortunately, the types of thinking required to do this are often very different than what students have learned in their previous 12 years of education (Illich, 1971; Nussbaum, 2011; Robinson, 2006; Sterling, 2008).

What Design Education Can Do

Design educators have always dealt with the challenges of preparing students for a constantly evolving field and a changing world (Alistar, 2009; Cross, 2001). Though design as a discipline is always shifting, the fundamental skills such as creativity, collaboration and openness to explore new ideas are inherent to the design practice (Nussbaum, 2015; Kelley, 2013). Reviewing literature around the history of design suggests that as the design discipline has developed, the connections between creativity, collaboration, and the freedom to play have been largely under-explored (Brown, 2009; Nussbaum, 2015; Werberger, 2015). Notable exceptions to this, such as the Bauhaus school, set some precedents and illustrate the potential to re- prioritize play.

note

Among the most important skills a designer must have is **divergent thinking**, generally understood as the ability to explore many different possibilities and generate a wide variety of ideas (Guilford, 1950). In *Breakpoint and Beyond: Mastering the Future Today*, by George Land and Beth Jarman (1992) they followed this creative capacity throughout childhood.

“When tested as kindergarteners, 98 percent of the study’s subjects scored at the genius level in divergent thinking. When they were ten, 32 percent of the same group scored as high, and by age fifteen, only 10 percent made the cut. When 200,000 adults were given the same test, only two percent tested at the genius level” (p. 21).

This raises the question: How can we expect students to think critically and creatively when the school systems they are in either actively discourage this type of thinking, (Robinson, 2006; Sterling, 2008; Werberger, 2015) or at the very least, do not encourage it? (Illich, 1971; Nussbaum, 2011)

2

Understandings

Playful Pedagogies
What is Play
Play in Design
Literature on Play

Play in Bauhaus Design Pedagogy

Bauhaus master Johannes Itten drew from his experiences and knowledge of how students learn as he reformed and developed new curriculum for the Bauhaus in Weimar. In 1919, during the school's reformation, he wrote in a letter to a friend, "thus, in one stroke, I have knocked out the traditional...academic approach by leading back creative activity to its roots in play. Those who fail at this in my book fail as artists or students." (Itten, 1919). He believed, "by discovering something within themselves his students would develop into imaginative individuals ready to confront the great task of designing for a new society." (Kinchin & O'Connor, 2011, p.75). He transformed the Bauhaus school and influenced design as a discipline by encouraging play in and out of classes- believing it was necessary and beneficial to his students. Itten was a highly respected figure, and his influence is still evident in design curricula throughout the world.

"Thus, in one stroke, I have knocked out the traditional...academic approach by ***leading back creative activity to its roots in play.*** Those who fail at this in my book fail as artists or students."

Itten's values and ideas about play, however, are not prevalent in contemporary design pedagogy. The emphasis on a holistic, playful pedagogy was diminished as the field of design moved away from emotions and spirituality towards the post WW1 rise of production and industry. Design historian Kathleen Skukair describes how "Western scientific technological civilization and... outward-directed scientific research and technology had all but usurped inward-directed thought and forces of the soul" (Skukair, 1987, p.85). This industrialized notion of productive work in design classes results in activities that can be evaluated by a quantitative rubric, over experiential, tangential methods of instruction.

Classes Today

Interviews conducted with current design educators at Emily Carr revealed desires for their students' professional and personal growth, and some common ideas about how to enable this. To supplement the interviews a general overview of literature from design educators, designers, and prominent design websites was conducted. There are countless credible voices in this field, however the ones informing this project are listed here.

Many of the challenges faced by instructors and discussed by former students can be addressed within an overarching theme: students have a tendency to act risk-averse. They are used to having a right answer and discouraged by perceived mistakes or ambiguity (Azzam 2009, Robinson, 2015; Werberger, 2015). This can create a situation where students have a tendency to start working with the first viable option they come across (Majumadar, 2015). Don Norman observes this manifested when designers regret ideas that were not explored because they were afraid of rejection (Norman, 2011). Many instructors say they try to encourage exploration or openness to mistakes by requiring many thumbnail sketches or multiple mockups of different approaches (Mitchell, personal communication, July 15, 2015). However, some students see this as a waste of time and tend to focus only on what they need to do to achieve their desired grade (Werberger, 2015).

To make new connections and reframe ideas requires freedom to muse about ideas in alternative ways, to look past current limitations, practice different modes of thought, and gain insights from every means a student has at their disposal. But if a student judges themselves for activities that seem “unproductive” just because they appear less goal directed or juvenile, they could be less likely to fully engage in the messy stages of the design process, or keep working through problem spaces when their ideas seem “wrong” (Majumadar, 2015).

AIGA
Bruce Nussbaum
Creative Blog
Creative Intelligence
D-school.stanford
FastCo
Forbes
From Project-Based
Learning to
Artistic Thinking
Journal of Creative
Behavior
Peer Effect on Students
Creative Self-Concept
The State of Design
Education
Tom and David Kelley
Sparks of Genius
Sir Ken Robinson

Classes Today

While there are a wide variety of ways to overcome these challenges, the interviews and secondary sources are in consensus that the most beneficial classroom experiences encourage exploration and making mistakes in a personally relevant way, where the process itself is as valuable as the goal directed design outcome, (Grotzer, 2008; Kelley, 2013; Majumadar 2015; Mitchell, personal communication, July 15, 2015). **Common themes emerged regarding the classroom situations that support students most effectively as they develop these skills.**

Encourage exploration and making mistakes
Free imagination from current limitations and modes of thought
Remove expectations and pressures of the classroom
Allow musings that make patterns from chaos, and vice versa
Change goals from grade oriented, to more personally relevant

If Play is Missing, What is Play?

In most of these interviews, observations, and articles the conspicuous absence of “play” became increasingly obvious. When play was mentioned, it was often in an off-hand, trivial manner, or as support for something else like the common Instructor comment to play with an idea. This idea of play seemed diluted from the deep spirit of play evidenced during the Bauhaus.

Play is an ambiguous term that is universally recognized, yet commonly misunderstood. In common usage, the definition and application of the word play varies depending upon the context. Academic studies and scholarship about play treat the topic with great seriousness, seeming from a realization that play is more than a trivial or frivolous pastime. Most literature defining play starts with the same accepted criteria proposed by cultural historian Huizinga in his seminal text on the nature of play in human culture, *Homo Ludens*, which roughly translates to “man the player” (1955).

In his writings, Huizinga defines 5 basic tenets of play:

Play is free, is in fact freedom

Play is not “ordinary” or “real” life

Play is distinct from “ordinary” life both as to locality and duration

Play creates order, is order. Play demands order absolute and supreme

Play is connected with no material interest, and no profit can be gained from it

Play and Design Classes

These statements about play started to seem like they were strongly related to the beneficial classroom experiences for design students.

Encourage exploration and making mistakes

Play is free, is in fact freedom

Free imagination from current limitations and modes of thought

Play is not “ordinary” or “real” life

Remove expectations and pressures of the classroom

Play is distinct from “ordinary” life both as to locality and duration

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Change goals from grade oriented, to more personally relevant

Play is connected with no material interest, and no profit can be gained from it

The realization that play had a greater role in the design process than it was currently getting credit for called for a re-investigation of the potential for play in the design classroom. My research began with an extensive overview of what other scholars had learned. **Numerous voices from psychologists, philosophers, designers, creatives and educators add to the discussion of play as a meaningful, necessary, and human instinct.** For brevity’s sake, a brief synthesis of respected voices that inform the project are as follows.

Uncovering and Understanding

Research in every discipline, across different cultures and spanning generations makes it evident that play can connect us to a richer, whole human experience. In the 1700's philosopher Friedrich Schiller wrote, "Man only plays when in the full meaning of the word he is a man, and he is only completely a man when he plays." (1789). He saw play as inseparable and influential to formation of culture, and evidenced in many pursuits that define us as sentient beings. As natural and instinctual as this deep, spiritual type of play can be, humans are social creatures, and we naturally long to play together. Stuart Brown, MD, Contemporary American psychiatrist asserts, "Play fosters belonging and encourages cooperation" (p.36, 2011). Because innovation and creativity require collaboration and sharing of ideas, this bonding and uniting experience of play provides great value to design.

There are numerous and increasingly loud voices in the field of design suggesting play is essential to creatively exploring problems, developing ideas, and increasing productivity throughout the design process. This is discussed in detail by prominent figures such as David and Tom Kelley, and Bruce Nussbaum. Sometimes these discussions of play are clear. In Paula Scher's Ted Talk, "Great Design is Serious not Solemn" she described how her best work was done when she was absorbed in an important task but not afraid to make mistakes, and felt free to play. (Scher, 2008). Paul Rand discusses the play instinct in design, saying, "There can be design without play, but that's design without ideas" (p.2, 1990). Sometimes, it is subtly present in studio and work spaces, or almost unconsciously integrated into a design process through rapid iteration, tangential explorations, and passion projects. These voices and perspectives contribute to an understanding that play is not just what happens after work. It is an important, instinctual, immersive experience. It is more than feeling good, it is feeling fully human (Ackerman, 1999), and being aware and engaged through personal experiences and interpersonal connections. It is both immensely valuable to designers and integral to design as a discipline (Kelley, 2013; Nussbaum, 2011).

On the Aesthetic Education of Man
Friedrich Schiller

Man, Play and Games
Roger Caillois

Homo Ludens
Johan Huizinga

Play: How it shapes the brain, opens the imagination, and invigorates the soul.
Dr Steward Brown

Creative Confidence
David and Tom Kelley

Creative Intelligence: Harnessing the Power to Create, Connect, and Inspire
Bruce Nussbaum

Design and the Play Instinct
Paul Rand

Deep Play
Diane Ackerman

Applying this Understanding

With this richer understanding of play in mind, it was suddenly evident that parts of play were still alive and well in design classes, just not as valued and encouraged as they could potentially be. I recognized many play-like activities in the design classes I was observing. When given breaks in class some students started working with each other's projects, experimenting and trying new things beyond the criteria of the grading rubric. Students were using cardboard prototypes in unexpected ways, and laughing about silly scenarios of use. They shared ideas they did not intend to use in a process book or to directly solve a problem: ideas just for fun. There were doodles and little paper creations that were made randomly and instinctually, creating order out of wandering thoughts. These actions were not to meet a project goal or develop skills, they were naturally occurring playful moments with the potential to be recognized and valued. The situations and environment that inspired these moments and the actions students were enjoying informed the creation of the Interludes.

3

Interludes

Defining an Interlude
Informing Theories
Play Patterns
Activity Rationale
Story

Interludes

As part of the re-framing and examination of the value of play I developed activities that encouraged playful moments in class. These were tested, refined, and ultimately became Interludes: pauses in the classroom design process where students are encouraged to have a playful mindset and take a break from their outcome oriented thinking.

During this bracketed period of time students are relieved from overly goal directed thinking and the pressures of class, and are more open to collaboration and making mistakes.

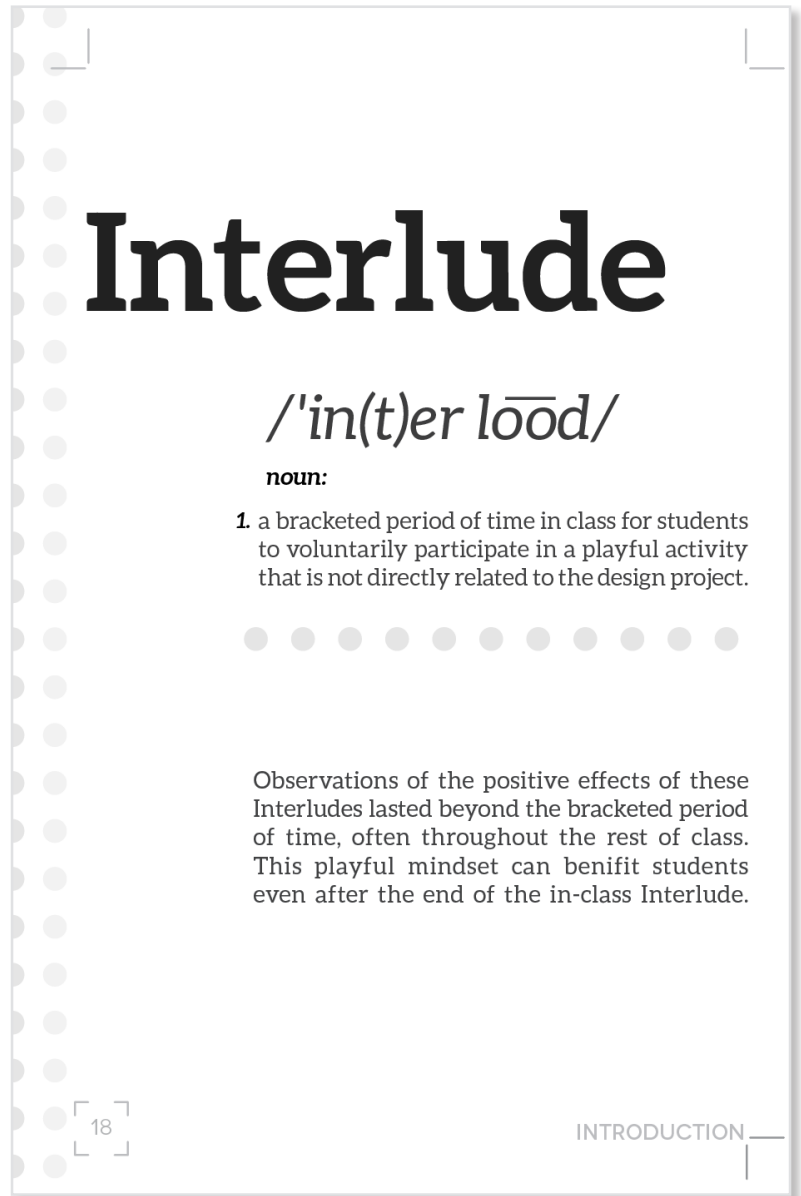
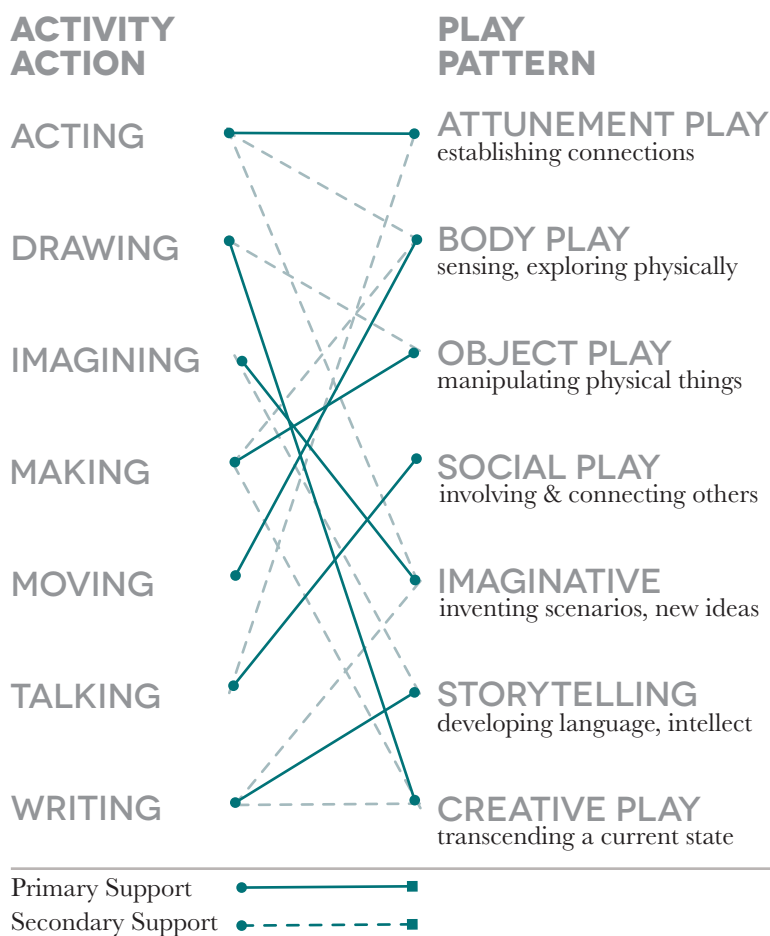


FIG 3 Interlude Definition

Informing Theories

These Interludes are inspired by established play patterns proposed by the National Institute for Play (1992). By examining theories from the biological, social, and psychiatric studies they codified the various states of play and corresponding human emotions and behaviors. The Interludes build off of these natural play patterns, incorporating them in classroom activities tailored to design students.



There are strong correlations between these activities and the skills students use throughout the design process. However, the emphasis on process over product and the voluntary, low stakes, high energy atmosphere differentiate Interludes from the type of work students typically do for a project.

This reflects the fundamental understanding that the experiential process of a playful moment is more important than the actions or outcomes. Because these activities are created to be less goal oriented, the Interludes are easily adapted to be more project specific without emphasizing the quality or viability of any tangible outcome.

FIG #4 Play Patterns

Activity Rationale



Act: This type of social play helps students create an emotional connection with the other actors or objects, and students are all pretending within the shared scenario they have agreed upon



Draw: It is easy for design students to get stuck on the computer and overlook other ways of thinking through problems. Limited time, and emphasis on experience alleviates pressure



Imagine: These engaging activities encourage divergent thinking in an environment with less constraints or expectation than during brainstorming or class discussions.

FIG #5-7 Activity Symbols

Activity Rationale



Move: Beyond the physical benefits of standing up and moving around, doing these re-energizes students and improves cognitive functions, which makes for a great refresher after a lecture or critique.



Write: Not only helpful to organizing thoughts and expressing ideas differently, these short, less formal writing activities are a fun way to nurture linguistic learning styles.



Make: This hands on, material exploration is essential for designers. These Interludes nourish a kinesthetic learning style while encouraging rapid iteration and exploration.



Talk: The social play of the Interludes is great for group bonding and cohesion; and alleviates the fears of public speaking and the pressures of presenting in a formal setting.

FIG #8-11 Activity Symbols

Interludes in Action

It is one thing to theoretically understand the benefits of these playful Interludes, but there is a deeper, richer sense of knowing that results from facilitating and observing so many of these moments. This following example of an Interlude experience is based upon observations of real classes during the testing of the Interludes, and supplemented with results from student surveys.

Interludes in Action

It is 3pm in a design core studio class and every minute is dragging on. The first project of the semester has just been critiqued and turned in, and even the students who managed to get a few hours of sleep last night are zoning out after the hours of critique. The emotional stress of publicly presenting and having the project criticized, the attention and effort of finding productive things to add to other student's work, and the generally low energy are palpable.

But then, instead of a ten minute break where students sit at the tables, eyes glazed over and smart phones in hand – the instructor stands up and says “we’re going to take a break but we’re going to do something different.” Students are directed to move their tables away; instantly changing the flow of energy in the room. Interested yet wary students focus on the instructor who is explaining the rules of this break. It sounds like a game.

The premise is simple. There are 19 students and 18 chairs in a circle in the middle of the room. The person in the middle of the circle is the critic, and has to call out something that many of the projects have in common. If the statement applies to a student's project, they get up and trade seats while the student who was in the middle sits down in a newly empty seat. The student who doesn't have a seat goes to stand in the middle, and calls out a new criteria.

It starts out slowly, challenging preconceptions about acceptable classroom behavior – is it really okay to run? Two students bump into each other, and everyone starts moving a little bit faster. One student makes a joke and everyone starts laughing more and more. As new criteria are called out it starts to get competitive. After a short while, students are racing each other around the circle, sliding into chairs, and quickly reacting. Removed from the expectations of the classroom and free from the pressures of getting it right or saying something useful; they are just responding, sensing, laughing. 10 minutes pass by too quickly, but the room still feels different as the next assignment is introduced. **Classmates act more like friends, problems seem more like challenges, and design is more like play.** The Interlude is over but the benefits of play have just begun!

4

Project Overview

Objectives
Research Questions:
Scope
Limitations
Precedents

Research Questions

Working with this hypothesis about the benefits of play, this project sought to answer these questions:

- Would playful moments be valuable throughout the design class process?**

- Would students see this as an appropriate use of class time?
- Would these moments be more accepted earlier in the process rather than towards the end?

In order to make full use of this research through design to create an actionable outcome, this project also explored:

- How can these findings benefit instructors and students in an easily implementable way?**

- Play is extremely personal and often spontaneous, how could a playful experience be planned?
- Could a framework support less inherently playful instructors?

Play vs Gamification

These playful Interludes, with their focus on an energetic process and personally relevant exploration, are distinct from gamification. Gamification, the addition of game like elements into a non-play context is prevalent especially in education and even in university settings. Learning games and conferences such as the Serious Play Conference reflect an increase in and appreciation of this technique for changing behavior and social interaction.

Gamification focuses on the outcome of the actions of the player, and the game functions as a tool to make the user do something that is extrinsically motivated. (Deterding, Dixon, Khaled, & Nacke, 2011). This differs from true play. True play is voluntary and intrinsically motivated. (Akerman, 1999; Brown, 2008). The goal of this project was to introduce the opportunity for playful moments into the classroom context in ways that were engaging and personally relevant. Students should want to participate for their own enjoyment of the experience, not for an external purpose or achievement.

Limitations

This project does not attempt to radically alter design pedagogy, demand new approaches or philosophies towards teaching, or even alter lesson plans. It also does not attempt to directly challenge the construct of productivity. With these limitations in mind, this project provides a framework for playful moments in class that could be easily implemented without impeding the flow of the pedagogy. The interlude is a nudge towards voluntarily and naturally valuing play and incorporating it more in the design class.



The *PlayBook* acts as a nudge by increasing awareness of the benefits of these playful moments, and suggesting ways to start experiencing them. For instructors, there is greater motivation if they know about the benefits and remember the increased energy and enjoyment of doing these playful moments in class. Having the framework of the Interludes provides a sense of support and increases instructor's ability to quickly and easily facilitate these moments. In this way the project could act as a nudge for more playful moments in the design classroom, and take a step towards a naturally more playful mindset and design pedagogy.

FIG #12 Fogg's Behavioral Model

Precedents

Situating this project required a precedent review of play in society, higher-level education, and design. To begin developing and testing my own designs I examined systems, artifacts, and experiences that incorporated play for adults, specifically in University settings.

This started with well known play systems for adults like LEGO's Serious Play Method, Maker Labs, and IDEO Method cards, which encourage both slightly more collaborative and playful approaches. Moving from systems to experiences like Volkswagen's "Fun Theory" (2011), revealed the potential to bring people together and create behavior change. The examination focused increasingly on play for design. The increase in classes on gamification, Serious Play, and game design reflect a desire to better understand Play from an academic standpoint. Such classes are prominent at Stanford D-School, especially in their most recent course offering "From Play to Innovation – how to bring play from the sandbox into your career" (2007). The review also examined how companies increasingly give employees paid time to peruse fun personal projects; or take special time to play together – like ZURB, a design and UI company that incorporates a fun 15 minute activity every Friday after their meetings (ZURB, 2014). These precedents reflect a trend in encouraging creative environments, like Google's famously fun office environments, (Kotter, 2013), and even ball pit meetings, rapidly popping up all over innovative western business places (BBC news, 2014). These increasingly popular and accepted methods of allowing adult play extend so far as to the Kindergartens popping up in New York that cater to the hard working executives that need a break from adult life, or a reminder of their inner child (CBC news, 2015).

These examples demonstrate an increasing acceptance of playing as a healing, beneficial experience for adults in today's society (Akerman, 1999; Kane, 2011). These make everyday tasks fun and challenging, transform traditional spaces and protocols, and encourage letting loose, unwinding, and getting in touch with this "inner child." The positive reception to these ideas, products, and projects reinforces Patrick Kane's idea of an emerging "play ethic," suggesting that following interests, pursuing passions and "having the confidence to be spontaneous, creative and empathetic across every area of your life" (p.135) is more relevant to today's workplaces and societal needs than the industrial revolution's quotidian "work ethic."

The general theory that play has social, cognitive, creative, and physical benefits could be applied in different contexts. To bring in the inspirations from these precedents and make them beneficial for students and accessible to instructors was a more ambiguous design problem, that required a flexible, rigorous methodology.

5

Research Methodology

Research Paradigm
Research Process Overview
Method of Making Interludes
Interlude Ethnography
PlayBook
Additional Research Methods
Evaluating Interludes

Project Research Overview

Research Methodology

To engage with questions about the value of play in design classes and best practices for creating these playful moments, this project was built upon a propositional design framework. This method benefits from “thinking and acting by means of projects” and “breaking the continuity of events by imagining a change in the state of things and how to bring it about” as described by Manzini (2015, 27). This project proposed and tested small ways to bring about an increase of playful moments, making the insights actionable for instructors.

Research Paradigm

The nature of these questions and the objective of the project in general suggested research by social inquiry. This called for an interpretivist research paradigm, a paradigm that reflects on qualitative data and takes into account the importance of personal experiences and meaning making (Collins, 2010). While there were some objective quantitative measurements, this project is mostly informed by the qualitative observations, dialogues, and the embodied knowledge gained through the experience of researching through design (Rodgers, 2014).

Research Process Overview

Two parallel tracks of research informed this project. One examined playful moments in class for students and the other informed a framework for instructors that places these playful moments with credibility in university design classes. These resulted in the creation of the Interludes and the design of the PlayBook, respectively.

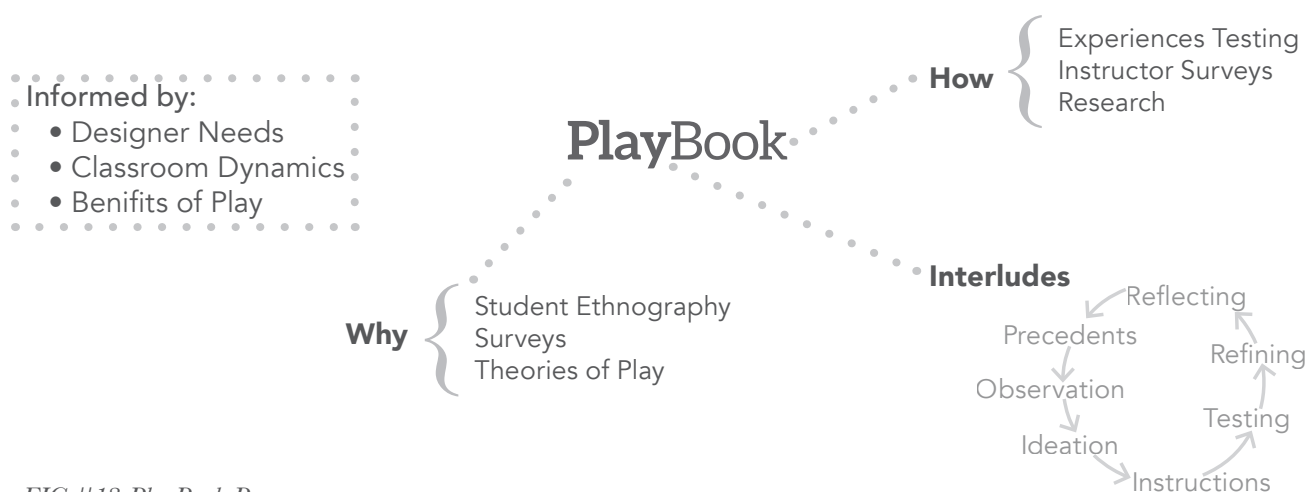


FIG #13 PlayBook Process

Informing Research

PlayBook Instructor Interviews

In order to make the results of this research actionable and answer the question “How can these findings benefit instructors and students in an easily implementable way?” I interviewed several design instructors, conducted an online anonymous survey, and tested several prototypes exploring how to help instructors conduct Interludes in their classes. The insights from these interviews, as well as personal experience gained while facilitating the Interludes informed the creation of the *PlayBook*. This process and results are in Playbook Research, (p. 40).

Interlude Ethnography

The creation, testing, refinement and evaluation of the Interludes were the predominant focus during the early stages of this project. This stage of the research involved a four month long ethnography, 18 focused ethnographies of shorter durations that were augmented with photography and unstructured interviews, two student surveys, and one quantitative test. These involved student volunteers from first year through fourth year of study, and took place in both communication and industrial design classes. The process and results from these methods are discussed in-depth in the Evaluating Interlude Experiences section, (p. 37). These resulted in a deeper understanding of the benefits of play and how to encourage these moments through Interludes.

This ethnographic approach to documenting emotions and behaviors is commonly used in design, so I practiced documenting playful experiences in adults by working with Science World during their Science World After Dark Events. This helped me learn what to look for, observe, and record as I noted experiences, interactions, and reactions. This directly resulted in the definitions of Captivation, Exploration and Enjoyment used throughout this project and framed my observations.

Additional Research Methods

Method of making

These Interludes were created and tested using an accelerated version of Flanagan's Critical Play method, from *Critical Play: Radical Game Design* (2009). This rapid process of testing and refining worked well for this project because it allowed for the development of Interludes that were relevant to the stage in the design process, different play styles, and adaptable to different classes. By going through this process for each Interlude, I was able to develop and test multiple Interludes rapidly. The framework for facilitating these moments was then incrementally developed and organized into the final design outcome, the *PlayBook*.

Interludes

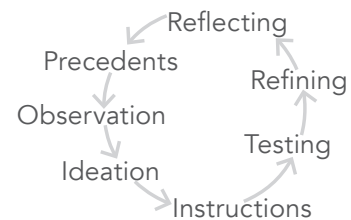


FIG #14 Interlude Process

A Guilford Alternative Uses Test (Indiana.edu, 1967) was used to measure divergent thinking before and after an Interlude. Additionally, to support observations and confirm personal interpretations of what was happening in class, the students who frequently participated in these Interludes were invited to complete an anonymous student survey asking about their experiences before, during, and after the interlude. The results from this are discussed in *Research Results*, (page 39).

6

Research Results

Guilford's Alternative Uses
Research Process Overview
Method of Making Interludes
Interlude Ethnography
PlayBook
Additional Research Methods
Evaluating Interludes

Guilford's Alternative Uses

Students were asked to perform Guilford's Alternative Uses Test before and after the "Tower Knockdown" Interlude. Guilford's Alternative Uses Task is a commonly used measurement of divergent thinking (Huddle, 2013). On this occasion, students were asked to work alone for 5 minutes and write down a list of "everything they could do with paper.". They then took part in the Interlude, "Tower Knockdown" in which small groups of students folded, tore, and taped paper while standing on tables and using chairs to follow the prompt to "create the sturdiest tower possible." After a discussion of their experiences, students switched modes, creatively blowing, throwing paper wads and otherwise demolishing their quickly made paper towers. In doing this pseudo-experiment I was aware that just by asking the students the same question a second time they were likely to think of more ideas, which would affect the fluency and the overall number of ideas they produced.

After completing the Interlude, the student's scores in Fluency (the number of unique answers) and Elaboration (the detail of those answers) were significantly higher. Some students referred directly to their experience, "Crumple paper and throw it at a tower." Others were more abstract: "Give as a gift" and/or elaborate, "Balancing a wobbly chair".

These studies and survey results lack the scientific rigor of a larger sample population and successful repetition. However, they help tell the story of this project and are exciting indicators of the value of playful breaks and collaborative experiences.

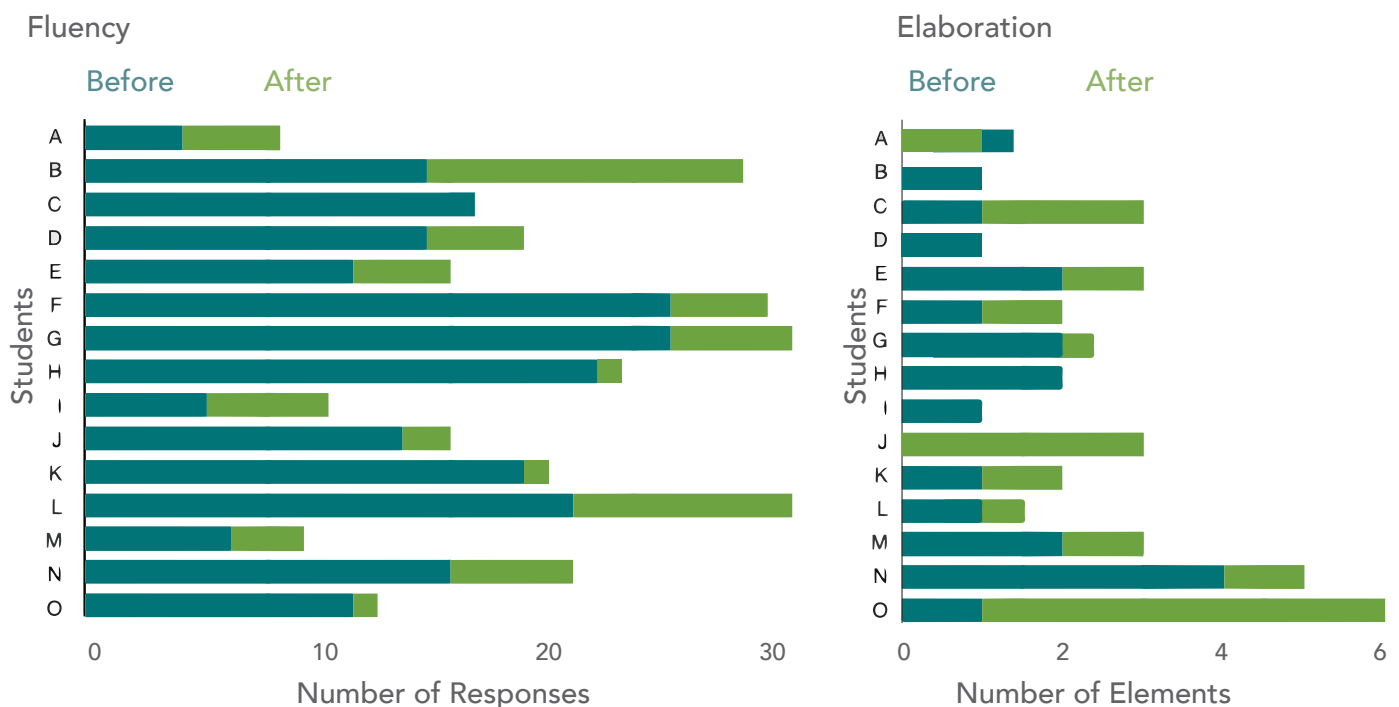


FIG #15-16 Guilford's Alt Uses

Evaluating Interlude Experiences

While testing and observing the playful moments in design classes, I defined a ‘playful mindset’ based upon definitions and understandings from *Deep Play* by author and poet and Diane Ackerman (1999), and, *Play: How it Shapes the Brain, Opens the Imagination, and Invigorates the Soul* by Dr. Stewart Brown (2009), founder of The National Institute for Play. I specifically observed to see if students were open to new ideas and experiences, engaged in the activity, and alert but not stressed. Several student surveys validated my personal observations, discussed in more depth in Student Survey Results. These more abstract mindsets were supported by more concretely observable experiences derived from Nokia Research Center’s Playful Experiences Chart (2010): Which is often referred to in studies of play and user experiences (Nokia 2010).

- **Captivation** – being fully immersed and participating voluntarily in the activity- not on a phone or computer, not chatting off topic with friends.
- **Exploration** – willingness to make mistakes, to try something without planning, and looking at something multiple ways. Moving on after a wrong direction, or laughing off a wrong answer.
- **Enjoyment** – measured by smiles, laughter, inviting other students over, full participation for the entire time, requesting more time, or requests to do the Interlude in future classes.

Interlude Research Results:

The observations of the Interludes throughout the design process was documented for research purposes, and included in the chapter cover pages of the PlayBook. This page shows the readers a snapshot of these dynamic experiences and summarizes some possible benefits and experiences during the selected Interludes. This simultaneously conveys some of the energy and enjoyment of the Interludes, and allows readers to quickly select an Interlude by the stage in the design process they are in.

Student Surveys

As part of a brief survey, students were asked to describe how they felt before, during, and after the Interludes. These illustrate the student experience and tell the story of the enjoyment and increase in energy,

Before	During	After
I didn't want to stand up and didn't want to play.	Felt amused and was having fun	Felt more energized, more focused
Liked sitting down	Became competitive trying to thing of new things to say *	Ready to continue with a somewhat boring lecture
Was feeling tired and restless	Thought it was fun and active	Wondered what the reason for the game was
Didn't know what we were going to do	Amped up	Felt energized
Didn't get it	Felt excited	Got a lot of fun from it
Sleepy and tired	Woke up	Fun
Was excited to get up and move around	Had troubles thinking fast but kept playing	Appreciated playing and understood why we did it
Was confused	Kinda fun	I have to get back to work
Thinking about what we are going to do	Relaxed and fun	Had more energy

**student also agreed to feeling closer to classmates.*

FIG #17 Student Experiences

Student Surveys

Context:

Distributed towards the end of the semester after Interlude “Critic Calls.” It took place late in the afternoon after critiques and a lecture wrapping up the project. It involves reflecting upon all the projects, thinking about different criteria to describe the projects, and running around the room trading seats.

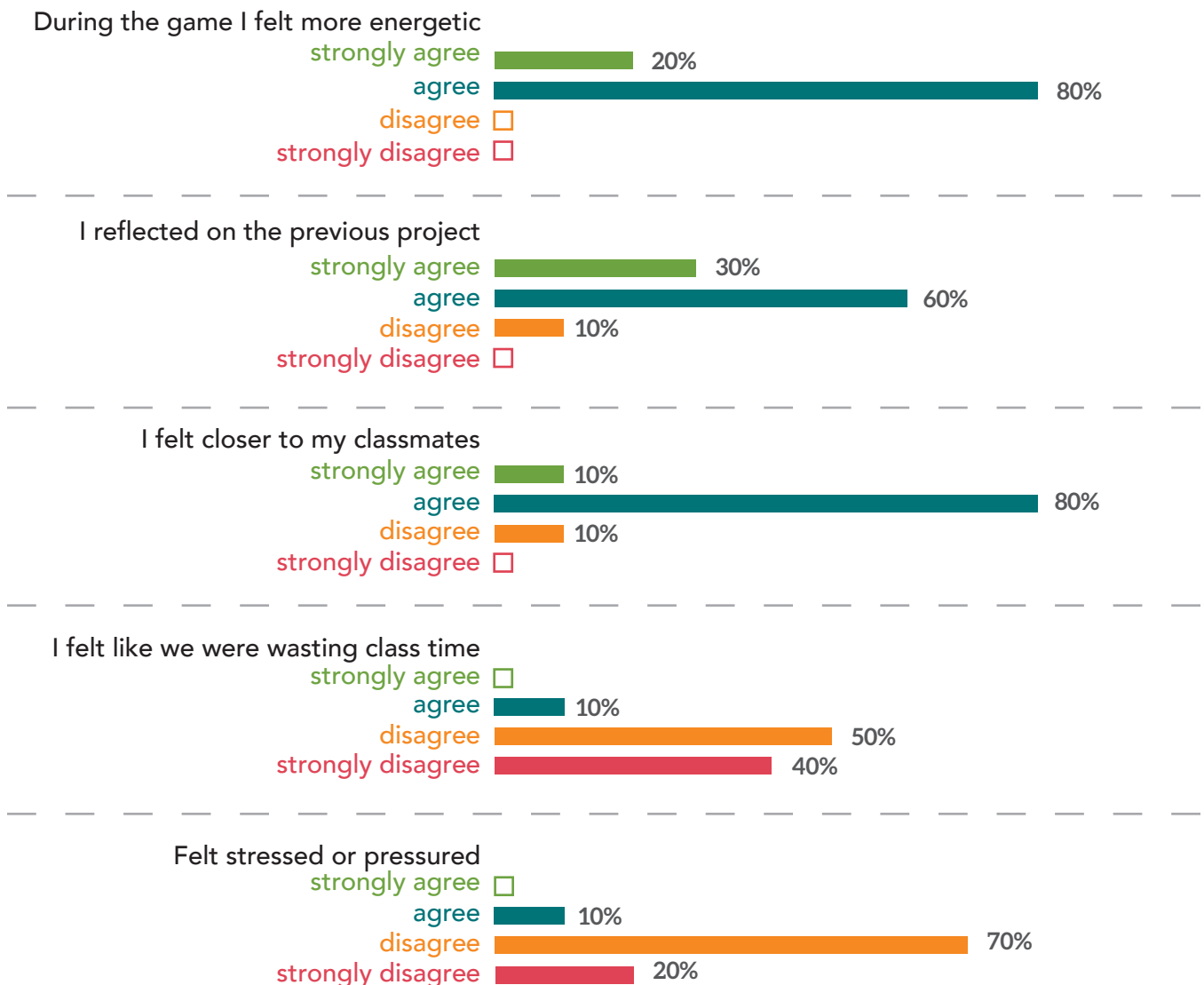


FIG #18 Student Survey

PlayBook Research

Initially, trials in disseminating this information included in-person demonstrations, and verbal descriptions. This ephemeral transference of knowledge soon became more permanent email conversations that gave step-by-step directions, and written notes left on desks with tips and last minutes considerations. Written material worked best, and the combination of these experiences and the instructor interviews revealed the need to have tangible materials. These Inter-ludes needed to be easily sharable and understandable for instructors or teaching assistants to use, suggesting dissemination through a book. Several informal interviews with instructors at Emily Carr revealed valuable insights, such as K. Gilleson's statement, "I'd love to do this if I knew how... and felt comfortable leading it." (personal communication, March 3, 2015). The insights from her and other instructors directly informed the design outcome(section: #).

FIG #19 Instructor Insights

Findings

87% of design instructors at Emily Carr would be likely to use quick, flexible, easy to facilitate activities that increase class energy, and support creative process in class.

"I would love to do this... If I knew how to and I felt comfortable leading it"

"I had intended to do more [playful, engaging activities] during the semester, but its hard to keep as a priority when there is much to cover"

"I tend to plan ad hoc lesson plans... I like having a bunch of resources that speak to me week to week."

"It would be great if it could be accessible format, where you could explore and search based on structured groupings and choose the best options for the particular situation."

Insights

Most instructors are interested in this and would benefit from playful, engaging materials.

To be most useful the materials should:

Fit within the existing lesson plan and curriculum.

Different, flexible time requirements

Different, flexible number of participants

Be relevant to the stage in the design process. Selected base upon where students are in the process/what they need help with. Benefits that extend beyond a particular class period or project

Clearly explained and not intimidating to use. Not require too much planning or setup Provide explanations and directions without being condescending

7

Design Outcomes

Guilford's Alternative Uses
Research Process Overview
Method of Making Interludes
Interlude Ethnography
PlayBook
Additional Research Methods
Evaluating Interludes

Design Objectives

Based upon this research, most Instructors were interested in this project and would use the design outcomes. From the Instructor insights and Interviews (page #) major design objectives were established.

To be most useful the Interludes should

- Fit within an existing lesson plan and curriculum.
- Be suitable to the stage in the design process.
- Have variable, flexible time requirements
- Have flexible number of participants.

To be most useful the *PlayBook* should

- Be easy to share and copy
- Explain why and how to do these Interludes
- Be organized by stage in the design process
- Support instructors without being condescending

Design Outcomes

Potential Outcomes

After evaluating the options and experimenting with several different forms, I chose a printed book as the best method of disseminating the Interludes. Other methods such as cards and digital platforms were considered but did not offer important qualities. For instance, cards would have been small and portable, but hard to sort through and easy to lose. Digital platforms such as an app, or a website, were initially considered. However, a physical book provided more of a reminder, was more accessible and easier to use without previous planning, and added to a feeling of community since it could be lent, copied, and handed in person from Instructor to Instructor. The physicality of the book also offers a physical reminder of support and structure to comfort facilitators who may be trepidatious.

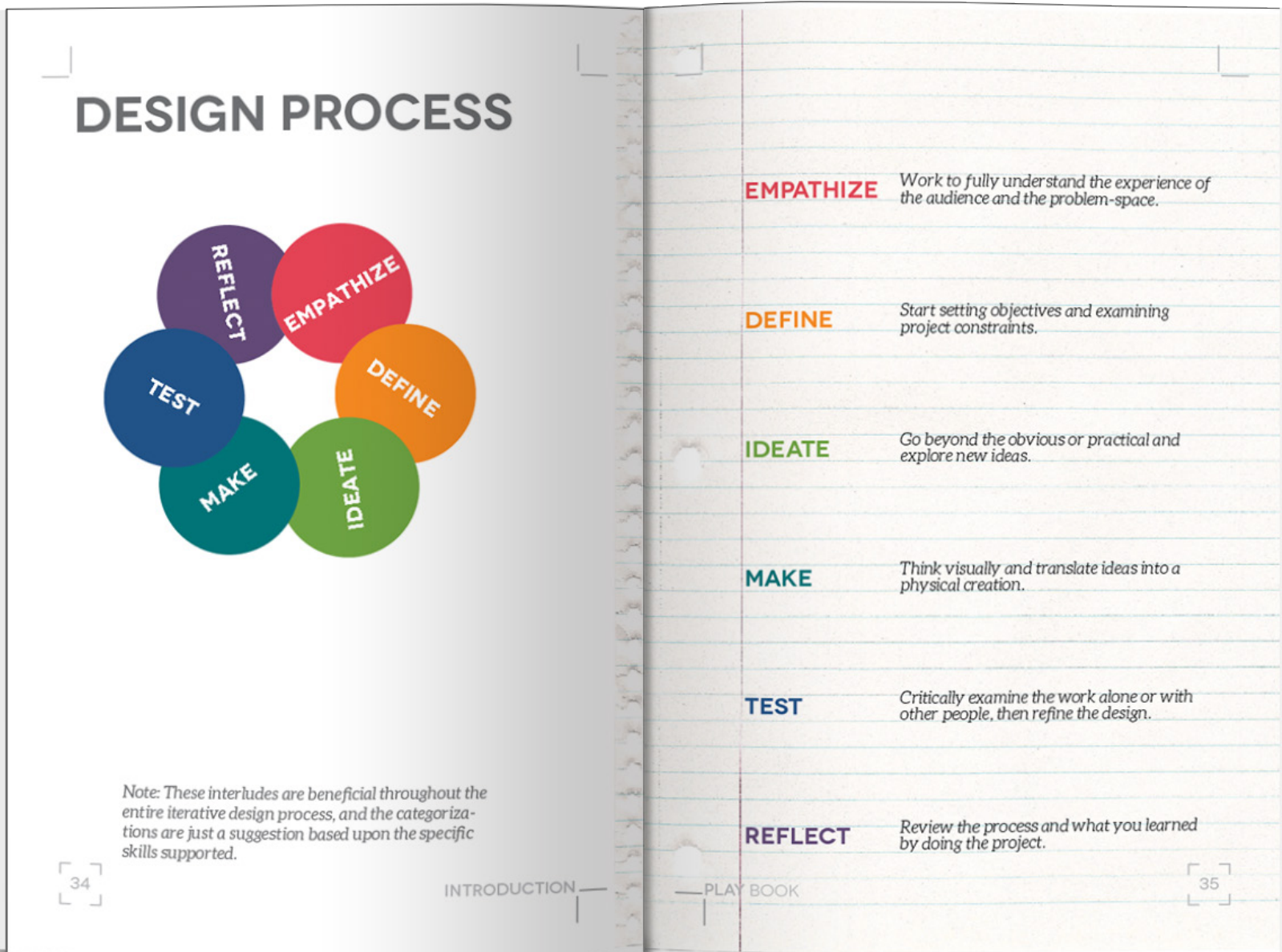
PlayBook

This *PlayBook* contains some introductory information to explain what the purpose and benefits of the Interludes are and to help instructors understand the theories informing the project and value or justify their use. It contains a brief discussion of how classroom dynamics change depending upon the room organization, and suggests room arrangements for each Interlude. Based upon feedback from Instructors about how they select classroom activities, it is organized to help instructors select Interludes based upon the stage of the design process or the type of activity desired. It is also written in such a way as to provide support and tips for facilitation, without limiting their options or telling Instructors exactly what to say and do. The Interludes selected for this final book are simple and do not require extra material or lots of preparation.

The *PlayBook*

I adapted the Stanford D-school's model of the design process, and incorporated separate sections corresponding to the actions and mindsets supported by different Interludes. While all the stages are iterative and informed by each other, this makes it easy to select a relevant Interlude quickly.

FIG #20 *PlayBook* Process Stages



The *PlayBook*

Interlude Selection



FIG #21 *PlayBook* Selection

The *PlayBook*

Section Covers

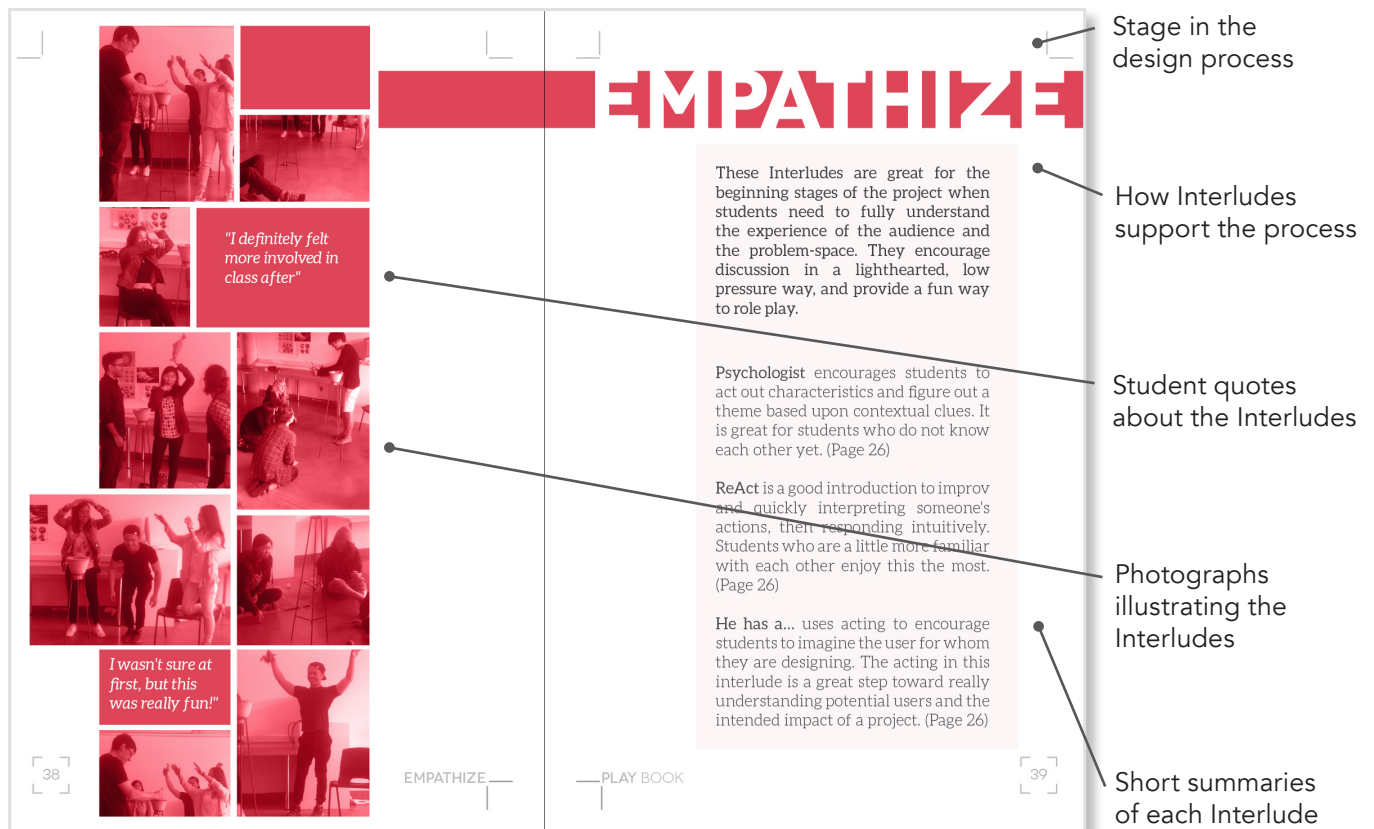


FIG #22 PlayBook Empathize Cover

The PlayBook

Section Covers

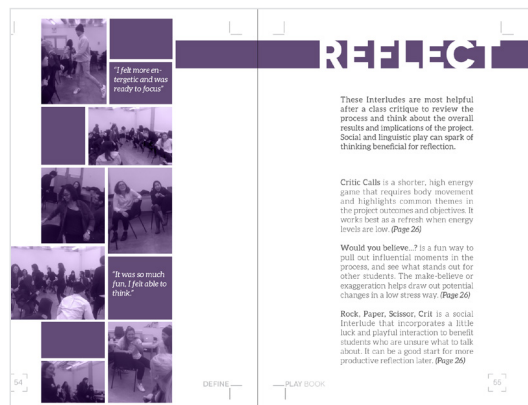
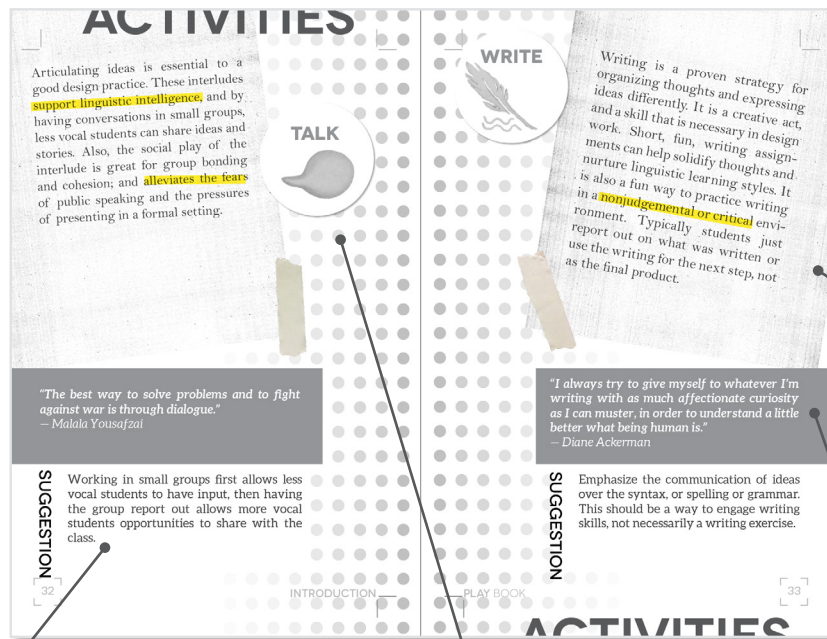


FIG #23 PlayBook Section Covers

The PlayBook

Activity Rationale

FIG #23 PlayBook Activity Rationale



Suggestions to emphasize the experience over the outcome

Introduces the activity icon

Correlation between activity and design

Quote from famous creative figure to frame the action

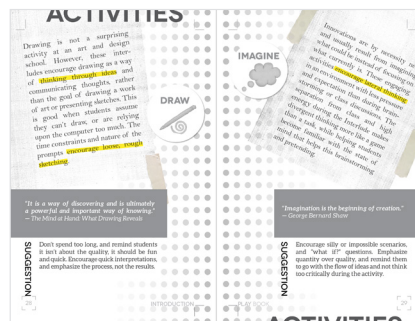
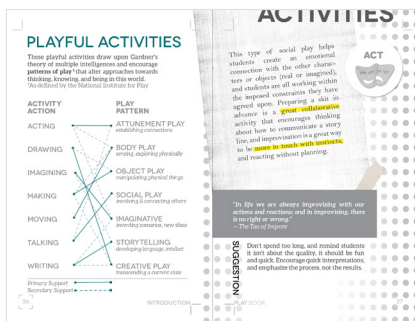


FIG #24 PlayBook Activity Rationale

The *PlayBook*

Interlude



FIG #25 PlayBook Interlude Example

Creating a Space

While conducting observations in the classrooms and testing the Interludes, I observed how certain physical room arrangements seemed to accompany certain types of activities and interactions. Informed by knowledge that the physical structure of a classroom is a “critical variable in affecting student morale and learning” (Phillips, 2014, p.4), and the accompanying insight that student involvement in the creation of their environment can, “empower them, develop community and increase motivation” (Phillips, 2014, p.5). While this project lacked time and resources to create a more playful or inviting environment, it soon became apparent just moving the tables and chairs around was a good signal to students that something different was about to happen.

The moment instructors told students how and where to move the chairs, students were more active and contributing to a more energetic classroom dynamic. 10 room diagrams were created to provide instructors with arrangement ideas and to suggest how they could set up the room to best support the specific Interlude.

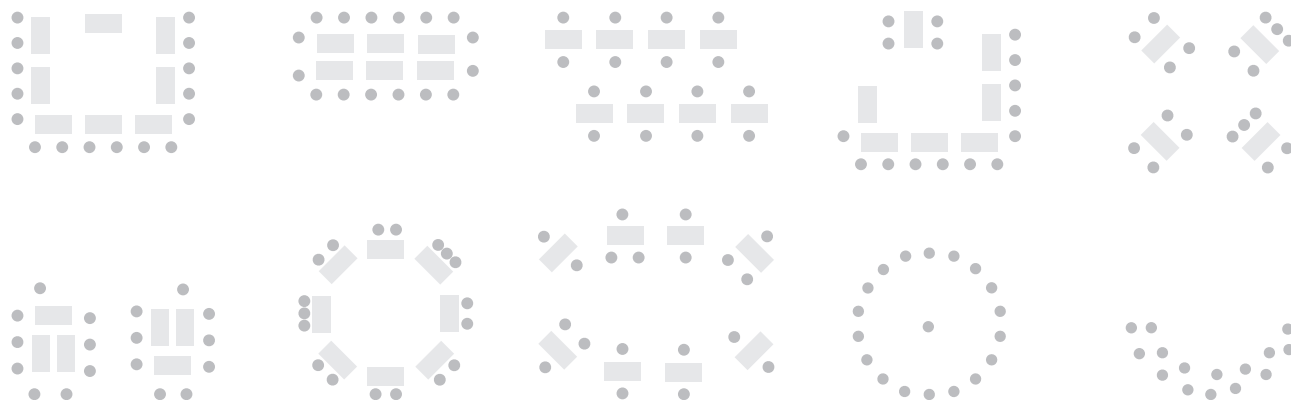


FIG #26 Room Arrangements

Design for Self-Efficacy

A major objective of the project was to move beyond the abstract understanding that play could be beneficial, and create something that design instructors and students could benefit from. The Interlude pages are designed and written to be structured, clear, and communicative, in order to provide a feeling of support and comfort, and to a degree, a feeling of self-efficacy. Bandura defines self-efficacy as “the belief in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (Bandura, 1994, p.4). Instructors are more likely to try something new that could be perceived as messy and chaotic if they feel supported and have a guide that helps them envision the upcoming Interlude. Once they have successfully experienced the increased energy and enjoyment and they have become more comfortable with this classroom dynamic, they are more likely to be open to similar naturally occurring situations. Successfully facilitating Interludes could build a sense of gradual mastery, and could result in more playful mindsets for students and instructors.

Successfully facilitating Interludes could build a sense of gradual mastery, and could result in more playful mindsets for students and instructors.

Dissemination

There is a copy of this book in the Emily Carr Library, as well as several copies that circulate around the Emily Carr design faculty. This dual approach reflects the findings that instructors currently look to books when searching for classroom support, but also enjoy sharing information with their peers. Because this in-person exchange of information allows for sharing personal experiences and is much more impactful than just checking out a book, it has potential to start building a community of instructors who use these Interludes and share their experiences and stories.

As part of the Emily Carr graduation exhibition “The Show” a version of the PlayBook will also be featured for student enjoyment, creating the opportunity for students to suggest this to their instructors. This also helps integrate awareness of these Interludes into the Emily Carr community, and expands the project’s potential reach.

Embodied Learning in Process

In addition to the classroom research, I made the conscious effort to incorporate a more playful personal process as well while reading, designing, observing, and reflecting. I often joined the students taking part in the Interludes, and incorporated the creation of playing with materials to make playful artifacts, including the symbols for the different activities which are made out of clay. I do not come from an industrial design background nor do I have a strong material practice. At first, making playful artifacts seemed like a daunting challenge. It was only by telling myself I was taking the morning to play that I was able to freely create without fear of failure or the expectations that it develop into something meaningful. These personal play explorations gave me a better understanding about what play looks like in a design process, benefits of the refreshing energy and insights playful breaks can bring to a personal process, and reinforced my desire to make this experience more accessible for students.



FIG #27 Interlude Symbols in Real Life



FIG #28 Design Exploration Encouraging Hands-on Making

The personal play projects that I did in parallel to the classroom research led to a series of insights that were influential in creating the playful experiences for students in class.

Insight

Internalized importance of physical making • • • • •
play signal (invitation to join the magic circle). • • • • •
planned but not prescriptive, open to spontaneity • • • • •
starting with known materials • • • • •
easier to incorporate play with low-cost materials • • • • •
focused on the process instead of the product • • • • •

Result

added the make and move activities
room arrangements
flexible directions in PlayBook
starting with known experiences/games
no expensive materials necessary
Interludes do not result in a deliverable



Reflections On the Research Questions

1. Would playful moments be valuable throughout the design class process?
2. Did students see the value, and view them as appropriate use of time?
3. How can these findings benefit instructors and students in an easily implemented way?

Reflections on the Research Questions

Project Insights

As important and impactful as this project outcome is, the overarching thesis project and the design research process lead to insights and deeper understandings that are applicable beyond the test site and the specific project.

As part of the process of exploring how to place play credibly and with authority in the design classroom, the project sought to better understand:

Original Research Questions

- Would playful moments be valuable throughout the design class process?
 - Would they be more accepted in the early phases of the design process?
 - How would they benefit students?
 - Could they have enough perceived value to justify playing in class?
- How can these findings benefit instructors and students in easily implemented ways?
 - Play is extremely personal and often spontaneous, how can this be designed for?
 - Could a framework support less inherently playful instructors and give them agency?

Reflection on the Research Questions/ 1

Would playful moments be valuable throughout the design class process?

Instructors were more open to Interludes at the beginning of the design process, and several times they were even referred to as “brainstorming activities”. Because designers are trained to be open to new ideas at the beginning of the project it makes sense this is how they were viewed at first. After several Interludes were conducted they were welcomed as an energetic break, a way to foster collaboration, a method for engaging in the design process and an enjoyable experience.

When students participated in Interludes in the early stages of a project, they were connecting different ideas, sketching, talking, and reported thinking in different ways. These early stage Interludes were the most popular, and both students and instructors were most receptive to doing these.

Interludes in the middle of the design process, particularly those that involved talking about ideas and working together, were sometimes less popular. Some students were resistant, preferring to work on their projects or take a break their own way. However, students who were initially reluctant reported enjoying the Interlude after its conclusion. Participating students continued going over to each other’s work after the Interlude and talking about ideas brought up during the Interlude, which indicates that benefits continue through the remainder of class time.

Reflection on the Research Questions/ 1

Would playful moments be valuable throughout the design class process?

When nearing a deadline, students were willing to participate in very short Interludes, especially when they were adapted to be more relevant to their specific projects. However Interludes are less immediately welcomed closer to deadlines, and even met with resistance— even though this is potentially when they could greatly benefit students. Playing and the accompanying laughter, mental processes, and physical activities alleviate physical and mental symptoms of tension, and even can reduce the perception of stress (Barnett & Magnuson, 2011; Mannell & Staempfli, 2007).

Students nearing a deadline feel that they need time to work. They are often focused on the pressures to produce a project worthy of a good grade within the deadline. This need to feel productive was a barrier when introducing the less goal-directed Interludes. This prioritization of work and productivity reflects a common lament of many play scholars, that we are trained to value work more than play. (Brown, 2008; Kane, 2011; Kelley, 2013). The conflict students felt between participating in a process that is indirectly beneficial, compared to continuing to work and produce results illustrates the theory that the ingrained “work ethic” could potentially add unnecessary pressures and prevent creative detours that could ultimately inform the project (Kane, 2011; Kelley, 2013).

This answers the original research question: yes, the Interludes are valuable throughout the design process, although they are more easily accepted and integrated early in the process. The value of Interludes later in the project is theoretically just as important, and demonstrably beneficial and enjoyable once students overcome their preconceptions and initial hesitation.

Reflection on the Research Questions/ 2

Did students see the value, and view them as appropriate use of time?

Students observably and self reportedly enjoyed these breaks from class (see results from *Student Survey page 39*). They liked participating in activities that encouraged different ways of

- feeling materials
- perceiving situations
- improvising responses
- responding intuitively
- acting instinctually

Students also enjoyed knowing they did not have to justify decisions. Even when students did not report seeing a value in the activities, they did enjoy them. Additionally, they reported feeling energized during the Interlude, and more connected with the other students after the interlude. The Interludes are especially useful for students who are mindful of their thinking processes and modes of knowing, and that they also offer a good introduction to other students.

The majority of students and instructors reported the Interludes were an appropriate use of class time. I met with overwhelming requests to do similar Interludes in other classes and again later in the course, indicating that “yes”, these playful moments are appreciated and appropriate for university design classes.

Even though these Interludes were not directly related to the student’s design deliverables, they were generally seen as valuable. They were short enough that they did not dominate class time, engaging enough that students were not bored or distracted, and enjoyable enough that students reported feeling more engaged and energized (*Student Survey page 39*). These characteristics demonstrate how the PlayBook fits within the modernist paradigm and current notions of productivity. The Interludes encourage more playful moments and do not overtly challenge the tendency to value hard work. Instead of intervening or attempting to disrupt design classes, the Interludes use the opportunity of a short break to reengage and connect students. Interludes contribute to quality work, encouraging a personally relevant process that incorporates a full range of human experiences.

Dialogues Within the Research Questions/ 3

How can these findings benefit instructors and students in an easily implemented way?

The clear and simple justification and directions in the *PlayBook* provide enough background knowledge and support to assist instructors, and the clear and relevant organization makes it possible to select appropriate activities in the moment, or to plan ahead. the Interludes do not require special materials or very much preparation, they can be implemented quickly and easily.

8

Barriers & Tensions

Barriers:

- Preconceptions about the value of play vs. productivity
- Expectations and previous experiences of school classrooms
- Uncomfortable ambiguity

Tensions:

- Purposeless yet Credible
- Structuring Open-Ended Experiences
- Instrumentalizing Play?

Barriers/1

Each student encountered unique and personal challenges that impeded becoming fully immersed and captivated, acting more energetically, or feeling open to explorations. In general, this project addressed:

Preconceptions about the value of play vs. productivity

This project succeeded when it allowed students to challenge and overcome preconceptions about the value of play vs. productivity. Several students initially did not see the point of the Interlude, and many were skeptical. After participating and becoming observably immersed in the activity, they “understood why [they] did it” and overwhelmingly enjoyed it (refer to *fig. 17 page 38*. Student survey results 1&2). A debriefing after the Interlude where students answered what they personally gained from the activity added to the overall group understanding in a more meaningful way than telling them why they did a certain activity. This informed the “tips” section of the *PlayBook*.

Barriers/2

Expectations and previous experiences of school classrooms

Many quiet and solemn students see the classroom as the antithesis of the playground (Werberger, 2015). Students who may have been previously chastised for running in class, talking out of turn, throwing balls, or generally “goofing off” during class time, or who are naturally reserved were understandably reluctant and slightly resistant to the idea of “playing”. The energy that more boisterous students brought had a positive effect on the general group, and alleviated some of this trepidation. The *PlayBook* itself played an important role in shifting expectations. For instructors who are naturally less playful, having a guide to this spontaneous and ambiguous experience allowed them to start within the framework of the Interludes. Instructors who followed the instructions and participated along with students, showed enjoyment and playfulness that helped resolve some of their students’ apprehensions.

Barriers/3

Some people do not feel comfortable engaging in these less structured ways of thinking and feeling

Culturally pervasive modes of scholarly thinking and ways of being prioritize rationality and objectivity, (Bai, 2009; Sterling, 2008) which influence student behavior in the classroom setting (Robinson, 2006; Werberger, 2015). One student who reported “slightly enjoying” the Interlude but also feeling “slightly pressured” responded, “You can’t just expect us to know how to act in a role play” (Student Surveys, Dec 2015). This statement is indicative of why this project is important. It pushes students to explore other ways of being students, and perhaps helps them access emotions and ways of thinking that are less emphasized in contemporary K to 12 education.

Tensions/1

This project addresses tensions that by their nature cannot be answered with a simple response. The following paragraphs detail the complexity of tensions explored throughout this project, such as framing play as purposeless yet credible; structured yet spontaneous.

Purposeless yet Credible

Engaging in seemingly purposeless activities during class time can seem contradictory. To alleviate this dissonance and foster acceptance and participation, the PlayBook contains open-ended prompts and scenarios. Instructors are able to adapt each Interlude to be as fantastical or project specific as they deem beneficial. The immediate relevancy gives students more of a sense of productivity, while still engaging in lighthearted and energetic activities. An example of this is the “They have a...” Interlude. Students create and draw a fictional target audience, then verbally guess the characteristics of that audience. This relates closely enough to a persona assignment. The less goal oriented and more imaginative activity was well received, though it was not part of the project outcome.

One group particularly enjoyed the “They have a...” Interlude, and continued making up stories together and illustrating backgrounds for their created people after the Interlude was over. The flexible structure of the Interlude successfully created experiences that encouraged students to engage and play. This was evidenced by their captivation and choice to continue working, their exploration of humorous ideas and situations, and their discovery of potential user traits they had been overlooking. The doodling and storytelling that took place during this Interlude might have been perceived as off task or purposeless on its own, but the PlayBook brought a sense of credibility and acceptance to the process oriented activity.

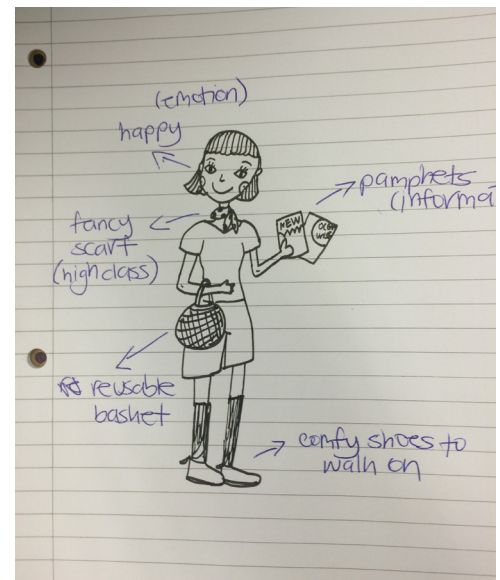


FIG #29 “They have a”

Tensions/2

Structuring Open-Ended Experiences

The Interludes are carefully structured, earning the “playful” title by relying upon playful elements, such as competition, familiar game structures, and the activities derived from the play patterns. These directions provide a solid framework for the progression of playful experiences without limiting the potential for spontaneity that is inherent in truly playful moments. Roger Caillois’ seminal text, *Man, Play and Games*, describes two ends of the range of play. Ludus refers to rule-bound, goal-oriented play, while Paidia describes the more expressive, improvisational play (1961). Referencing Huizinga’s almost seemingly contradictory tenets that, “Play is free, is in fact freedom” and that “Play creates order, is order. Play demands order absolute and supreme” (1951), Caillois explains how the dynamism of play causes perpetual shifts from one towards the other; thus creating rules and structure from chaotic free play, and allowing for expressive elaborations to develop from structure and order. In this way, the structure of the Interludes creates potential for spontaneous, personally voluntary play to arise during the time and space of the in-class activities.

Tensions/3

Instrumentalizing Play?

Throughout the project, whenever I codified play based upon the experiences I was observing, or when I evaluated what specifically was allowing these experiences to occur, I became concerned that this project could be seen as trying to systematize, or worse, instrumentalize, play. Even though the Interludes create the opportunity for open-ended, personally relevant play, they may be misunderstood as a collection of teaching tools, or “brainstorm techniques” to help students. Teaching tools and brainstorming techniques are very different from the project’s goals to support true play; play that is without extrinsic drivers and the need for outcomes.



Implications for this Project

Pedagogy of Play
Play to Persevere
Further Research Opportunities

Pedagogy of Play

Once instructors and students have experienced the Interludes they will hopefully be more comfortable with playful moments that arise naturally at other times. This could result in a more open, collaborative, and creative classroom. Heesoon Bai, Charles Scott, Beatrice Donald examine the disconnect between body, senses, and world in contemporary education in *Contemplative Pedagogy and Revitalization of Teacher Education* (2009). This realization that play can encourage different ways of knowing and acting in the world, as well as embracing a fully human experience (Ackerman, 1999; Brown 2009), has implications for play to to empower creativity and learning.

By seeing problems as challenges, and exploring complex ideas in a playful manner; students could be more open to differing opinions, new ideas, and freer to make mistakes (Ackerman, 1991; Kelley, 2013). This sort of atmosphere would be a safe space for students to discuss feelings and failures without feeling the fear of judgment, or being thought too emotional. The initial observations of the Interludes indicate the resulting catharsis in the classroom could have positive implications for the way students approach both their school work and interact in the world.

Play to Persevere

There is common acceptance from parents, teachers, and psychologists that play is important for children to strengthen social bonds, cognitive skills, and have a fulfilling childhood (Brown, 2009). The importance of play in adults has only more recently started to be legitimized and rigorously examined. A study conducted at the University of Illinois investigated the inter-relationship between playfulness in adults, and resiliency. Replications of this study are required to gain a larger data sample, but initial results suggest that “playfulness serves a strong adaptive function with university students, providing them with specific cognitive resources from which they can manifest effective coping behaviors in the face of stressful situations” (Magnuson, 2011, p.14). As the future problem solvers and policy makers of our society, students deserve every advantage possible to thrive in our increasingly stressful and precariously balanced civilization.

This re-valuing of play is important now more than ever. In discussing the role of design in creating a more sustainable future, Ezio Manzini, asserts “the precondition for every possible sustainable society is its resilience—its capability of overcoming the risks it will be exposed to and the stresses and breakdowns that, inevitably, will take place” (2013, p.2). Play is one more means of contributing to resilience, easing stresses, and exploring innovative solutions for breakdowns. **So perhaps it is time to take a breath, start messing around, and get to playing.**

~~We need to buckle
down, stop messing
around, and get to work~~

Perhaps it is time to
take a breath, start
messing around,
and get to playing.

Further Research Opportunities

This research through design project, the resulting Interludes and the *PlayBook* successfully address the research questions, lead to a deeper understanding of why and how students could have playful moments in design classes, and provide an actionable step towards placing play with credibility and authority in the university design class. A more extensive observation of design classes would be required to evaluate how often the Interludes were used after the creation of the PlayBook, and whether there were more playful moments as a result. This is beyond the scope of this Masters of Design project. However, the positive reception, requests for copies, and enthusiastic student response is a strong indicator of the value and constructive impact of this project.

It is, however, just a small step in a possible direction. Few scientifically rigorous studies have been done measuring cognitive benefits, or linking playful adult behavior with improved creativity. Would quantifiable evidence of the importance of play be enough to challenge our culturally ingrained emphasis on working hard and staying busy? Would a study scientifically proving these links be better received than stories and descriptions of feelings? Can we include playful moments and move closer towards a holistic education or do we, as a society, need a paradigm change to acknowledge the emotional, spiritual, messy side of learning and creativity that cannot always be rationalized?

7 Epilogue

Last Words
Works Referenced
Appendix

Epilogue

Overall, this project not only interjected playful moments throughout the design process, and brought energy, enjoyment, and excitement to both students and instructors; it transformed my own design process. The Interludes were playful, personally relevant and beneficial to students throughout the design process. The positive reception of this project indicates it could be a nudge towards a more playful design pedagogy starting with one playful moment at a time.

You, as a reader, whether a student or an educator, a researcher or designer; can use this as a stepping stone to explore further in this direction, or use this body of work and research to point your compass in different, less explored directions. This field is a veritable playground, and there is no one way to play.

This project began because I wanted to do something that could suggest steps towards a small improvement in society. I turned towards design because designers have the imagination and the combination of skills necessary to propose alternate ways of engaging with the complex and daunting issues we as a society must overcome. Our current students are the next generation of makers, do-ers, and designers who will be creating our future one moment at a time. To help students, one must first take care of and assist their instructors in any way possible. Educators in general deserve more than an apple, they deserve orchards. While it was beyond my ability and the scope of this project to fix, change, or create dramatic solutions – please accept this Masters Project as my contribution, my token of gratitude, and the outcome of my hard work and play.

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Appendix/ Student Survey Brainstorm Ball

Brainstorm Ball : Katherine Gilleson 3rd year design core Feb 15th 2016

I felt open to new ideas

SD
D
A 1111111(7/12)
SA 11111(5/12)

I felt closer to my classmates

SD
D 1 (1/12)
A 11111111 (8/12)
SA 111 (3/12)

I felt Stressed or pressured

SD 1111 4/12
D11 (.5)1111 (4.5/12)
A 11 (2/12)
SA 1 (1/12)

I felt alert and engaged

SD
D
A 1111 (4/12)
SA 1111111 (8/12)

Comments:

- Good exercise for promoting dialogue
- Fun co-creation/ activity.
- Reminds me of throwing the discarded drafts into the garbageman but w/ good ideas
- Really interesting way to brainstorm, thinking about how I could do this on my own
- I'm not as inspired without the social/competitive aspect
- thanks for the inspiration
- very well planed activity
- Insights on brainstorming
- super fun and a good warmup
- helpful
- Fun, competitive atmosphere but in a very friendly way. very encouraging to all work on the same thing so we felt like we were working together despite being on separate teams.

Before I felt:

Unsure , confused, a little confused,un-sure, wasn't sure about it
unmotivated
a little bored & closed in
timid, uncertain
I [felt I] wouldn't be able to come up with ideas
Un-enthused
ready to participate in a new/different experience
curious, sort of blank,
awkward and uninterested

During I felt:

fun FUN
Excited
Awake, more open to communication with others.
engaged, motivated engaged ,
engaging, fun competing
free, no restrictions
creative and free to explore
thinking about new ideas
pressured to move fast, competitive, intense fun, engaging.
competitive
I liked trying to get the paper in the box.
I liked coming up with crazy stuff

After I felt

new ideas
relaxed, inspired
want to sketch ideas
good ideas to take away
motivated, somewhat helpful
left with multiple and multifaceted ideas
having better ideas
a little overwhelmed but excited,
awake, thoughtful, engaged
more awake, it was a bit hard to categorize
I wanted to know who won

Appendix/ Student Survey Critic Calls

Critic Calls : Louise St. Pierre 3rd year Industrial Design November 2015

During the game I felt more energetic

SD
D
A (8)
SA (2)

I reflected on the cook project

SD
D (1)
A (7)
SA (2)

I felt closer to my classmates

SD
D (1)
A (9)
SA

I felt like we were wasting class time

SD (4)
D (5)
A (1)
SA

"Thankyou for organizing these games for us! I think the class becomes livelier when we've played a game"
"as an introverted person, I never liked games even as a child, it is not my type of play"
"Roleplay- most people don't have experiences with this activity, it would be helpful to give more activity prompts prior to the activity."
"We've been taught to be structures and critical, expecting empathetic participation goes against our conditioning. "
"Play can and should be integrated into the classroom but it takes breaking existing ideologies"
"starting with games that feel familiar are a good starting point, for example, today's dictionary was familiar and incorporated skills we already have.
Music would help during breaks
Thanks for the fun!
More clear instructions

Before I felt:

Didn't know what we were going to do.
Liked sitting down
was feeling tired and restless
was excited to get to get up and move around
I didn't want to stand up and didn't want to play
didn't get the rules
:)
Sleepy and tired
thinking about what we were going to do
was confused

During I felt:

Amped up
became competitive trying to think of new things to say (agreed with closer to classmates)
thought it was fun and active
had troubles thinking fast but kept playing
Felt amused and was having fun
felt excited
woke up
relax and fun
kinda fun

After I felt

felt energized
ready to continue with a somewhat boring lecture
wondered what the rationale of the game was
Appreciated playing and understood why we did it
Felt more energized, more focused
got a lot of fun from it
fun
had more energy
I have to go back to work
hurt my knee

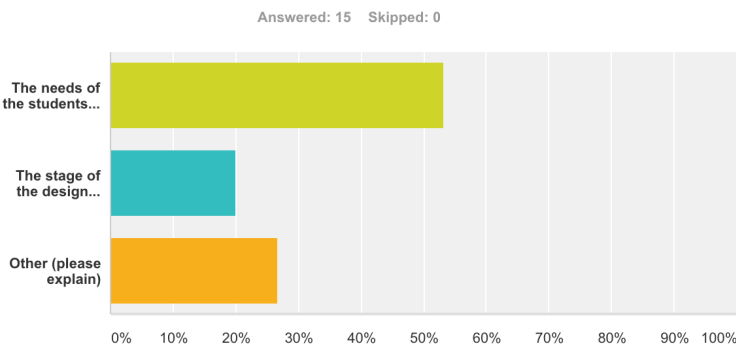
In general I felt:

It was funny, It was fun, Its fun I like it, its fun,
It made me laugh at other people
It was mind stimulating
reflected how much we know about each others projects
Hesitant at first but I had fun!
Play again
Its hard to come up with new ideas for questions

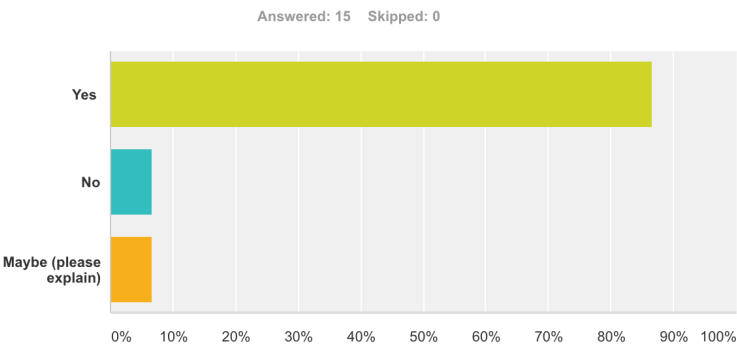
Appendix/ Instructor Survey

An online survey conducted 11/04/2015

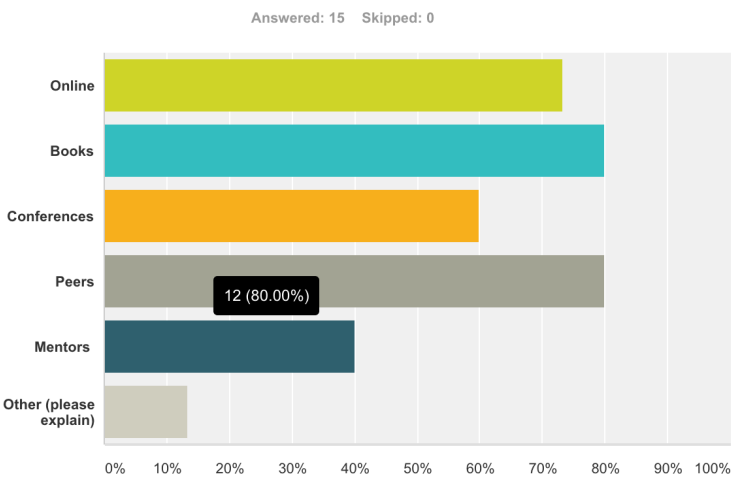
If you knew there were materials you could check out and use in class, would you select something based upon:



Would you be likely to use quick, flexible, easy to facilitate activities that increase class energy, and support creative competencies in your class?



Where do you currently look for ideas or resources to use during class?



Appendix/ Research Ethics

DRAFT 2013-08



1399 Johnston Street, Vancouver, BC, Canada V6H 3R9

Office of Director of Research EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

FORM 201 Research Ethics Application

This application form is used for ethics review of *all* participant research activity at Emily Carr University *except* for the following:

- For courses that include participant research, use **Form 208.1 Application Form (Course-Based Research)**.
- For participant research by undergraduate students, use **Form 208.2 Student Application Form (Course-Based Research)**.
- For externally approved research, use **Form 202 Application for Externally Approved Research (from another institution)**.

This form is to be submitted by the Principal Investigator (PI), which at Emily Carr University refers to the person who leads the research, supervises the other researchers, and is responsible for the financial administration of the project. Students and graduate students cannot be listed as PI. Principal Student Investigators and Co-investigators will receive all of the correspondence concerning the application, and can be the named contact for revisions and communications. All of the investigators listed have exclusive access to the file and any materials stored with the file after the project's conclusion.

Deliver complete and signed applications to the Research Ethics mailbox or to ethics@ecuad.ca. (Do not ask Security or Front Desk personnel to handle confidential materials.) **Incomplete applications will not be reviewed.**

No research with human participants at Emily Carr University shall commence prior to approval of the ECU-REB.

(ECU-REB Use Only) ▶ File #:	
Date Received:	Date Reviewed:
Reviewers:	
Status/Date:	

SECTION A – GENERAL INFORMATION

1. PROJECT TITLE:	Play for Purpose			
2. PROJECT DATES: (Commencement to Completion)	Spring 2015- Spring 2015			
3. RESEARCHERS:	Name	Faculty/Prgm	Phone	E-Mail
Principal Investigator(s)	Louise St Piere	Design	(604)215-1461	lsp@ecuad.ca
Principal Student Researcher	Allison Edwards	Design	(604)729-3447	allisonedwards@ecuad.ca
Co-Investigators				
4. SCOPE OF PROJECT:	<input checked="" type="checkbox"/> Graduate Thesis Project or Dissertation <input type="checkbox"/> Other (describe) _____			
Playing in Class	<input type="checkbox"/> Faculty Research	80		
	<input type="checkbox"/> Administrative Research			

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<p>5. PARTNERS & COLLABORATORS: List the individuals, organizations or companies that will be involved in this research project. Attach any agreements that are available.</p>	<p>Contact Persons - researchfellowships@museumofplay.org</p>	<p>Organizations (name and address) – A potential collaborator is the Strong National Museum of Play. Negotiations are currently in progress to allow access to their library of research, collaboration with their resident play scholars, and museum collection of toys and games. The proposal is attached.</p>
<p>6. OTHER ETHICS CLEARANCE: List the other institutional research ethics boards that have approved this project, or that will review this project.</p>	<p>Institutional REBs -</p>	<p>Application Numbers and approval dates (as available) –</p>
<p>7. PROJECT FUNDING: Describe all of the sources of funding for this project. Include sources of in-kind contributions.</p>	<p><input type="checkbox"/> CIHR <input type="checkbox"/> NSERC <input type="checkbox"/> SSHRC Funding / Agency file # (not your Tri-Council PIN) -</p>	<p><input type="checkbox"/> Other (including Canada Council, BC Arts Co., foundations, donors, etc.)</p>
<p>8. CONFLICTS OF INTEREST: Describe any non-academic benefits (e.g. financial remuneration, patent ownership, employment, consultancies, board membership, share ownership, stock options, etc.) expected by the researchers, partner organizations, or collaborators as a result of the academic credit. Describe any restrictions to the results of the research requested or agreed upon by any of the researchers, partner organizations, or collaborators.</p>	<p>N/A</p>	

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SECTION B – SUMMARY OF PROPOSED RESEARCH

<p>1. RATIONALE Briefly describe the purpose and aims of the proposed research project in non-technical language. This should be consistent with, and an elaboration on, the aims or purpose of research on the consent materials.</p> <p>If available, attach the project proposal from funding applications and the thesis proposal.</p>	<p>Design is about challenging assumptions and finding alternatives. At Emily Carr we are focused on Human Centered Innovation- Meeting the needs of people by examining possibilities and feasibility of ideas to address the emerging problems of the future. We do this through Design thinking, a process that requires years of experience and self reflection upon action and practice to really master and understand.</p> <p>My research will examine the use of play in serious moments to guide students through design thinking while learning about and dealing with the complex problems. It will result in methods and activities that help students understand the problem, come up with ideas, and evaluate those ideas (Inspiration, Ideation, Implementation). The participatory ethnographic study/workshop (ES/W) involves the use of playful activities in workshops with Emily Carr's ecoTANK studio to test the effectiveness of the proposed methods and show the value of play. Activities will be worked out with Louise St. Pierre in advance, so that they are suitable for the pedagogy. Students will have the option of removing themselves from the study group, but will still have the same classroom experience as the others. Surveys at the beginning and end of the workshops in class will quantitatively measure student's attitudes, and compare reflection and awareness of design thinking before and after the workshops. Activities primarily build upon theories from Vygotsky, Csikszentmihalyi, DeBono, and Dr Steward Brown, and will be influenced by discoveries during my research at the Strong National Museum of Play.</p>	
<p>2. METHODOLOGY: Check all that apply and describe sequentially how the various research procedures or methods will be used.</p>	<p>Check all that apply -</p> <p><input type="checkbox"/> Computer administered tasks</p> <p><input checked="" type="checkbox"/> Ethnographic documentation</p> <p><input type="checkbox"/> Focus Groups</p> <p><input type="checkbox"/> Interview(s) (telephone, Skype)</p> <p><input checked="" type="checkbox"/> Interview(s) (in person)</p> <p><input type="checkbox"/> Journals/diaries/personal correspondence</p> <p><input type="checkbox"/> Non-invasive physical measurement</p> <p><input type="checkbox"/> Observational field notes</p> <p><input type="checkbox"/> Oral history</p> <p><input type="checkbox"/> Participatory design (probes, co-creation activities, storytelling)</p> <p><input checked="" type="checkbox"/> Photo/audio/video recording</p> <p><input checked="" type="checkbox"/> Questionnaire/survey (mail, email/web)</p> <p><input checked="" type="checkbox"/> Questionnaire/survey (in person)</p> <p><input type="checkbox"/> Secondary Data</p> <p><input checked="" type="checkbox"/> Unobtrusive observations</p> <p><input type="checkbox"/> Other</p>	<p>Describe</p> <p>For more info please see "Methodology", attached</p> <p>I will be conducting an online questionnaire with Emily Carr Design Instructors to explore frustrations they have, attitudes towards play in design classes and to assess what would be useful to teachers in a classroom. Participation is optional.</p> <p>Interviews and unobtrusive observations at the Strong Museum of Play in August I will examine game structures, toys, materials, and ways to encourage freeplay to incorporate in the workshops, and interview play scholars about best practices for facilitating play to assist with creativity.</p> <p>Participatory Ethnographic Study/Workshop (ES/W). Research location will be the EcoTANK Design Class under the supervision of Louise St. Pierre. I will provide an orientation to the project, and explain this poses no more threat than daily life, and that they may opt out at any time. I will be comparing ideas/problem solving approaches before and after the workshops and keeping a record of student's responses/actions/quotes.</p> <p>Survey for design students in the class. I'm surveying students before and after the workshops. This will gauge attitudes and awareness of play/brainstorming/ reflection on their design process; and provide data to compare to a second survey administered at the end of the semester in order to show an improved reflection on practice, and understanding of design thinking.</p> <p>Reflection on action and research through design as I create and facilitate the workshops and keep a journal of observations and self reflections.</p>

Appendix/ Research Ethics

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3. PROFESSIONAL EXPERTISE / QUALIFICATIONS: If any of the research activities require professional expertise or recognized qualifications (e.g., first aid certification, registration as a clinical psychologist or counselor), describe here.	N/A	
4. PARTICIPANTS: Indicate the groups that will be targeted in recruitment for participation in the proposed research.	Check all that apply - <input type="checkbox"/> Undergraduate students of Emily Carr University <input type="checkbox"/> Graduate students of Emily Carr University <input checked="" type="checkbox"/> Faculty or staff of Emily Carr University <input type="checkbox"/> People recruited by the industry partner <input type="checkbox"/> Patients of a health care organization <input type="checkbox"/> Students of another educational institution (specify) <input type="checkbox"/> Members of specific groups or organizations (specify) <input type="checkbox"/> People who identify as Aboriginal <input type="checkbox"/> People who do not have full capacity to offer free and informed consent (describe) <input type="checkbox"/> Children or adolescents (specify) <input checked="" type="checkbox"/> Adults <input type="checkbox"/> Elders <input type="checkbox"/> Other (specify)	Describe any specific inclusion criteria (affiliations, gender, age ranges, capacity for consent, other) - I will specifically be targeting students in the ecoTANK studio, and participating design classes at Emily Carr. They will be participating in the initial survey, es/w, and second follow-up survey. The instructors will also be involved both as participants and moderators. Faculty at Emily Carr teaching design classes will be the primary participants in the online questionnaire. Researchers at the Strong National Museum of Play will be the primary group interviewed, and the museum will be a main place for observation.
Describe any exclusion criteria - I am primarily focusing my research on design students and educators.		What is the expected number of participants? The same 18-25 participants in both surveys and the es/w. Additional design classes incorporated will also have between 18-25 students. Focus group will have 5-10 participants. The Interviews at the Strong will have 5-10 participants.
5. RECRUITMENT: Describe how the participants will be recruited. Attach any materials that might be used for recruitment (e.g., Email texts, posters, flyers, advertisements, letters, telephone scripts). Describe the rationale for incentives offered to the participants.	Questionnaire participants will be recruited through an email to faculty asking for follow-up from anyone who is interested in participating. Unstructured Interview participants will be verbally asked prior to recorded correspondence. ES/W participants will be invited to participate as part of the class activities.	
6. INCENTIVES: Will participants be offered incentives to encourage their participation? If yes, describe the incentive plans and the rationale for using incentives.	No incentives for participants.	

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6. SETTINGS OF RESEARCH:	Check all that apply - <input checked="" type="checkbox"/> Emily Carr University <input type="checkbox"/> Community Site <input type="checkbox"/> School <input type="checkbox"/> Hospital <input type="checkbox"/> Company <input checked="" type="checkbox"/> Other	Specify the locations of research - Some interviews and observations will take place at the National Museum of Play. Most research is here at Emily Carr, and in the EcoTANK Design Class.
7. FEEDBACK TO PARTICIPANTS:	Describe your plans for providing or offering to share the results of your research with the participants. This might include invitations to final presentations or exhibitions or copies of publications. This should be consistent with the description on the consent form. – Students will receive feedback throughout the course of the workshops, have access to my thesis online, and a special invitation to my presentation. Faculty who participated in the focus group will be invited to the final presentation. Collaborators at the Strong will receive a copy of my final thesis, as well as the 500 word summary that is required as part of the fellowship requirements.	

SECTION C – PROPOSED RISK / BENEFIT RATIO

1. BENEFITS TO PARTICIPANTS:	Describe any known or anticipated direct or indirect benefits that the participants might gain from their participation in the research activities. This description should match the description on the invitations or consent materials. – Faculty taking part in the focus group will learn about how other instructors help their students through the stages in design thinking, and opportunities for playing and creating fun activities. Students will enjoy fun activities and be provided an opportunity to reflect on their practice and grow as designers. The Strong will benefit from the discussion of play from a design thinking perspective and will be able to add my research summary to their database.
2. BENEFITS TO SOCIETY:	Describe any known or anticipated direct or indirect benefits to the research community or society from the proposed research. This description should match the description on the invitations or consent materials. – Playful Participatory Ethnography, as discussed by Aaron Scott in, "The Routledge companion to Design Research" is an emerging research method building upon traditional methods but with the intent to encourage more play. "Playcentric research allows the researcher to identify areas where play is being used and where it can be implemented." (402) Reflections upon the success and weaknesses of this method could add to the discussion of these emerging and niche research methods. Additionally, the workshop materials should be useful for professors and teachers in general.

Appendix/ Research Ethics

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<p>3. RISKS: Indicate any risks that are likely to happen to the participants as a result of the research. Describe if the risks identified are greater or less than the risks that the participants might encounter in similar activities in their everyday lives.</p>	<p>Check any that apply -</p> <p><input type="checkbox"/> Physical risks</p> <p><input type="checkbox"/> Psychological or emotional risks</p> <p><input type="checkbox"/> Social risks (including privacy issues, economic position, status, relations with others)</p> <p><input type="checkbox"/> The research involves an element of deception (describe in detail)</p> <p><input type="checkbox"/> The research involves the disclosure of information that is intimate or sensitive in nature</p> <p><input type="checkbox"/> Other (describe)</p>	<p>Describe –</p> <p>The interview, questionnaire and survey do not have any risk associated with them.</p> <p>The ES/W will not involve any more risk than daily activities. Additionally, activities will be planned in a way to minimize any insecurity about sharing ideas, and promote enjoyment.</p>
<p>4. MITIGATING RISKS:</p>	<p>Describe how the researchers will mitigate the risks described above. Describe the resources that can be offered to the participants and if the researchers are skilled and equipped to deal with the identified risks.</p> <p>The workshops will be taking place during class time and under supervision of class instructors. Any work with students will be in cooperation with the instructor to ensure the activities are enjoyable and do not pose any more risk than daily class activities.</p>	

SECTION D – THE CONSENT PROCESS

<p>1. CONSENT FORMS: Indicate and describe the consent materials and processes that will be used.</p> <p>The following forms can be modified to match the needs of the research:</p> <ul style="list-style-type: none"> - Template 201.1 Invitation / Consent Form - Template 201.2 Media Release Form - Template 201.3 Online Survey Preamble <p>If other consent or release forms are used, explain in detail.</p> <p>Attach all of the consent and release materials that will be used in this research.</p>	<p>Check all that apply -</p> <p><input type="checkbox"/> Information letter with a consent form</p> <p><input type="checkbox"/> Media release form</p> <p><input type="checkbox"/> Combined invitation and consent form</p> <p><input type="checkbox"/> Combined invitation, consent and media release form</p> <p><input type="checkbox"/> Assent processes for those who do not have the capacity to provide free and informed consent.</p> <p><input type="checkbox"/> Non-written consent (describe in detail)</p> <p><input type="checkbox"/> This research requires an exemption from the consent process (describe in detail)</p>	<p>Describe –</p> <p>The approved forms are attached and filled out according the the guidelines.</p>
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SECTION E – CONFIDENTIALITY & SECURITY

<p>1. PRIVACY: Indicate the level of confidentiality built into the research design. Describe the rationale for the collection of identifiable research materials (data).</p>	<p>Check all that apply -</p> <p><input type="checkbox"/> Directly identifiable – the research materials (data) will identify specific participants through direct identifiers like name, phone number, address, social services numbers. (Describe)</p> <p><input type="checkbox"/> Indirectly identifiable - the research materials (data) can reasonably be expected to identify specific participants through a combination of indirect identifiers like place of residence and date of birth. (Describe)</p> <p><input type="checkbox"/> Coded – direct identifiers are removed from the research materials (data) and replaced by a code. There exists a possibility that with access to the code, it may be possible to re-identify the participant.</p> <p><input type="checkbox"/> Anonymized – the research materials (data) are irrevocably stripped of direct identifiers. There is no way to link a code to the data in the future.</p> <p><input type="checkbox"/> Anonymous – the research materials (data) never has identifiers associated with it (for example, anonymous surveys) and the risk of identification is very low.</p>	<p>Describe –</p> <p>The Interview participants will be directly identifiable because they are leading experts in their field and their name and position gives credibility to their statements. They are signing the media release and consent form.</p> <p>The members in the questionnaire will be given a number, and all recorded information will correspond to their number.</p> <p>The students participating in the ES/W will be assigned letters to keep track of their statements, experiences and work produced. Photos will be taken in accordance to the signed media release form. Participants may withdraw from the study at anytime, and if they request the removal of personal data, any photos containing them will be cropped or deleted, any direct quotations will be removed and photographs of their work will not be included in the findings or appendix.</p> <p>Any personal information collected will be stored in a password encrypted folder and adhere to the media release form.</p>
<p>2. STORAGE AND HANDLING DURING RESEARCH:</p>	<p>If identifiable research materials (data) will be collected, describe in detail how these materials will be stored and handled during the course of research.</p> <p>All data will be taken with consent of the students, including photos of work, descriptions of actions, quotes and results from the survey. Collection will follow the guidelines in the media release form, and data will be kept in a password encrypted folder.</p> <p>The other identifiable data comes from the interviews, which are voluntary and from published scholars talking about their work.</p>	
<p>3. STORAGE AND ACCESS AFTER THE CONCLUSION OF RESEARCH:</p>	<p>Research data and confidential materials will be submitted to the instructing Faculty Member at the conclusion of the project, for secure storage at Emily Carr University.</p> <p>If the researchers require that the data or confidential materials be stored or shared outside of the university following the conclusion of the research, describe these plans in detail.</p>	

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4. WITHDRAWAL:	<p>Describe if there are any restrictions to the participants' right to fully withdraw their participation and data during the course or after the conclusion of the research activities.</p> <p>Participants in the research will have the option to withdraw at anytime by not filling out the survey, walking away, or not participating in the focus group or interviews. All data will be erased, and/or no further data will be collected, depending on the preference of the former participant.</p> <p>Students may withdraw from the study at any time, and removal of data will be ensured; any photos containing them will be cropped or deleted, any direct quotations will be removed and photographs of their work will not be included in the findings or appendix. Further actions and statements will not be included in the study, work will not be documented, and they will not participate in the after study. They will participate in the activities that are part of the curriculum for the course, but will not be recorded or included in the research.</p>
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SECTION F – MONITORING OF RESEARCH

1. ECU-REB MONITORING: Is it expected that the research will require additional monitoring, beyond the minimum yearly requirement? If yes, describe the plans for this.	N/A
2. ANTICIPATED ADDITIONAL RESEARCH: Is it expected that any of the research described in this application will continue beyond the conclusion of this project? If yes, describe in detail.	N/A
3. POST APPROVAL REPORTING & MONITORING: Serious adverse events (unanticipated negative consequences or results affecting participants) of research must be reported to the ECU-REB ethics@ecuad.ca using Form 207 Adverse Report Form . NOTE - Incidents involving accidents (including near misses), illness, property damage happening on university premises of involving employees, contractors, visitors or volunteers must be reported <i>immediately</i> to supervisors and security for first aid (if necessary), mandatory investigations, and mandatory reporting. Any changes to the approved research must be reported in advance. Changes can also be proposed during the annual review. In both situations, use Form 206.1 Annual Review or Request to Modify Previously Approved Research . The ECU-REB file is closed when the participant activities are finished. Use Form 206 Completion of Participant Research to report on the number of participants and the project materials' secure storage. Will monitoring of the participant research activities by the ECU-REB be required more than yearly?	

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SECTION G – DOCUMENT CHECKLIST

<p>Check all the documents that are attached -</p> <p><input type="checkbox"/> Agreements with partners and collaborators (memos of understanding, letters of support, etc.)</p> <p><input type="checkbox"/> Certificates of approval from other REBs</p> <p><input type="checkbox"/> Project proposals from funding applications</p> <p><input checked="" type="checkbox"/> Thesis proposal</p> <p><input type="checkbox"/> Proposed recruitment materials (email texts, posters, flyers, advertisements, letters, presentation or telephone scripts, etc.)</p> <p><input checked="" type="checkbox"/> Modified Template 201.1 Invitation / Consent Form</p> <p><input checked="" type="checkbox"/> Modified Template 201.2 Media Release Form</p> <p><input type="checkbox"/> Modified Template 201.3 Online Survey Preamble</p> <p><input type="checkbox"/> Other consent materials</p> <p><input checked="" type="checkbox"/> TCPS2: CORE certificates for each investigator</p> <p><input type="checkbox"/> Other (describe)</p>	<p>Describe additional materials that are included with this application or will be submitted later. List pending documents and expected date of delivery.</p> <p>Please find the following attached:</p> <ul style="list-style-type: none"> -the Strong Fellowship application (Pending acceptance in March) -A description of the research methodologies -The Invitation and Consent Forms -The Media Release forms -A summary of my thesis proposal. -The TCPS2 Certificate for Louise St Pierre and Alli Edwards
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SECTION H – DECLARATION

<p>FOR ALL APPLICANTS -</p> <p>I have read the Emily Carr University Policy and Procedures 5.1 – 5.2.1. I will ensure that all participant research activities that are administered in this course will meet these Emily Carr University standards and any other legislation or professional codes of conduct that may apply.</p> <p>I have completed the TCPS2: CORE (Course on Research Ethics).</p> <p>I will inform the ECU-REB of any changes to participant research or any incidents relating to the participant research covered by this application in a timely manner.</p> <p>At the completion of the course-based participant research, I will submit the following documents to the ECU-REB office for secure storage:</p> <ul style="list-style-type: none"> - TCPS2: CORE certificates from the student researchers; - All of the recruitment materials, consent forms and media release forms that were used; - Any data that requires 5-year storage, or a statement indicating its secure location at the university; - Agreements with external partners that have not yet been submitted; - Any other pertinent documents or descriptions of changes to the original application, including any occurrences of adverse effects 	
<p>Signature (Principal Investigator)</p>	<p>Date</p> <p style="font-size: 1.2em;">FEB 20 / 2015</p>
<p>Signature (Principal Student Investigator)</p>	<p>Date</p> <p style="font-size: 1.2em;">Feb 19 / 2015</p>
<p>Signature (Co-Investigator)</p>	<p>Date</p>
<p>Signature (Co-Investigator)</p>	<p>Date</p>
<p>Signature (Co-Investigator)</p>	<p>Date</p>

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FORM 204.3 Research Ethics Completion Form

At the conclusion of an approved participant research project, the Principal Investigator is required to complete and sign this form. Return the original signed copy of this form (or an electronically scanned version) to the Research Ethics mail box or to ethics@ecuad.ca. It can be accompanied by any research materials that require secure storage on the university premises. (See page 15 of the application form.) If the materials do not fit inside the Research Ethics mailbox, make arrangements for in-person delivery of the materials – ethics@ecuad.ca.

Please do not ask the front desk or security staff to deliver confidential materials.

Principal Investigator:	Louise St Pierre	
Student Principal Investigator:	Allison Edwards	
Other Investigators:		
ECU-REB File Number:	2015022505	
Dates of ECU-REB approved research:	May 5th 2015-May 4th 2016.	
Number of participants who were engaged in this research project:	30	
Were there changes to the way participant research was administered and supervised since the original ECU-REB application?	No	
Have there been adverse incidences affecting the participants ? If yes, complete and attach FORM 204.2 Adverse Incident Report if one has not already been submitted.	No	
Date Project-Based Research was completed:	April-15-2016	
Signature (Principal Investigator or Principal Student Investigator)	Date May-02-2016	